UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

BRG HARRISON LOFTS URBAN RENEWAL LLC, Plaintiff, vs. GENERAL ELECTRIC COMPANY, ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES, LLC and ACCREDITED ENVIRONMENTAL TECHNOLOGIES, INC., Defendants.	Civ. Act. No. 2:16-CV-06577 **FIRST AMENDED COMPLAINT**

Plaintiff BRG Harrison Lofts Urban Renewal LLC ("BRG"), by its attorneys, Chiesa Shahinian & Giantomasi PC and Sive, Paget & Riesel, PC, for its First Amended Complaint in the above-captioned action against General Electrical Company ("GE"), Environmental Waste Management Associates, LLC ("EWMA") and Accredited Environmental Technologies, Inc. ("AET"), alleges as follows:

1. This matter arises out of defendant GE's unlawful refusal to remediate mercury contamination detected in and under certain buildings recently purchased by BRG in Harrison, New Jersey – contamination that GE and/or its predecessors caused from their prior operations on the subject site and which defendants EWMA and AET negligently failed to fully detect when retained to investigate the subject site as part of BRG's due diligence in connection with its purchase. BRG has already incurred several hundreds of thousands of dollars of out of pocket expenses in necessary investigation costs, and stands to incur millions of dollars of additional out of pocket expenses in necessary investigation and remediation costs, and carry, legal and

redesign costs, based on Defendants' violation of their statutory, common law and contractual obligations to BRG.

2. BRG therefore asserts statutory claims against GE pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 et seq. ("CERCLA"), the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq. ("RCRA"), New Jersey's Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a-23.11z ("Spill Act"), and New Jersey's Environmental Rights Act, N.J.S.A. 2A:35A-1-14 ("ERA"), and asserts common law claims against GE for breach of contract, nuisance, negligence, strict liability, and restitution for specific performance and past, present and future investigation and remediation costs and consequential damages. BRG further asserts breach of contract and professional negligence/malpractice claims against EWMA and AET for their careless work (on which BRG relied in moving forward with the purchase of the site) in failing to detect the extent of mercury contamination inside the buildings at the subject site.

PARTIES

3. Plaintiff BRG is a limited liability company formed under the laws of the state of New Jersey, with a principal place of business at 307 Frank E. Rodgers Boulevard South, Harrison, New Jersey. BRG is the current owner of the subject site.

4. Defendant GE is a business incorporated under the laws of the State of New York with its principal place of business located at 3135 Easton Turnpike, Fairfield, Connecticut 06825. GE conducts business in New Jersey and is the corporate successor to RCA Radiotron Company, Inc., RCA Manufacturing, Inc., the Radio Corporation of America and RCA Corporation (collectively referred to as the "RCA Entities") as further alleged herein. GE and/or

its predecessors are responsible parties who caused environmental contamination at the site, including mercury contamination, and GE has refused to remediate it.

5. Defendant EWMA is a limited liability company doing business in New Jersey and incorporated under the laws of the State of New Jersey, with a principal place of business at Lanidex Plaza, 100 Misty Lane, Parsippany, New Jersey 07054. BRG retained EWMA to investigate environmental contamination at the subject site in connection with due diligence BRG was performing on the Site in connection with BRG's purchase thereof. EWMA investigated environmental contamination at the subject site in a negligent manner.

6. Defendant AET is a corporation doing business in New Jersey and incorporated under the laws of Pennsylvania, with a principal place of business at 28 North Pennell Road, Media, Pennsylvania 19063. AET was retained through EWMA to perform a mercury investigation on the subject site in connection with BRG's purchase thereof, and did so in a negligent manner.

JURISDICTION AND VENUE

7. This Court has jurisdiction over the subject matter of this action pursuant to 42 U.S.C. §§ 9607(a) and 9613(g)(2), 6972(a) and 28 U.S.C. §§ 1331 and 1367.

8. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b) and 42 U.S.C. § 9613(b) insofar as the subject site is located in this District and GE, EWMA and AET transact business in this District. In addition, the events, actions and omissions giving rise to this claim occurred in this District, including the operations by GE and its predecessors that caused mercury contamination as well as EWMA's and AET's negligent work at the site.

FACTUAL ALLEGATIONS

A. The Site

9. On or about June 9, 2015, BRG acquired two parcels of real property located at 400 South 5th Street in Harrison, Hudson County, New Jersey, and designated Block 131, Lots 17-24 (the "Parking Lot Parcel") and Block 156, Lot 1 (the "Main Parcel") on the Town of Harrison tax map (collectively, the "Site").

10. BRG acquired the Site for the express purpose of redeveloping it for residential use – specifically as residential loft apartment units and related parking.

11. The Main Parcel is improved with three multi-story industrial buildings, referred to herein as "Building A", "Building B", and "Building C" and is approximately 2.1 acres in size.

12. The Parking Lot Parcel is approximately 0.40 acres in size and asphalt-paved.

13. The Parking Lot Parcel is bounded on the north by Bergen Street followed by the Harrison Plaza Shopping Center, on the south by Essex Street followed by Interstate I-280, municipal parking and railroad tracks, on the east by 5th Street followed by a vacant commercial property and Harrison Equipment & Industrial Supplies, and on the west by a commercial/retail development including a Seabra's grocery store and a Wendy's restaurant.

14. The Main Parcel is bounded on the north by Sussex Street followed by residential properties, on the south by Bergen Street followed by two commercial buildings (one is vacant) and five residential properties, on the east by Sixth Street followed by residential properties, and on the west by Fifth Street followed by the Harrison Plaza Shopping Center.

B. Operations at GE's Lampworks

15. In approximately 1882, GE's predecessor, the Edison Lamp Company, acquired Building C at 420 South 5th Street, moved onto the Site and utilized the property to design, test and manufacture incandescent light bulbs.

16. Lamp manufacturing operations on the Site by the Edison Lamp Company commenced around the spring of 1882 (these operations are referred to herein as "GE Lampworks").

17. In 1882, the Edison Lamp Company employed approximately 150 people.

18. In 1889, the Edison Lamp Company was consolidated into the Edison General Electric Company.

19. In 1892, the Edison General Electric Company and the Thompson-Houston Electric Company were consolidated to create GE.

20. GE constructed Building B at 530 Bergen Street in 1907.

21. By 1912, GE employed almost 4,000 people at its Harrison, New Jersey facilities.

22. GE constructed Building A at 400 South 5th Street in or around 1913 or 1914.

23. GE managed, directed, and conducted the operations of GE Lampworks on the Site, manufacturing various types of lightbulbs, until approximately 1929.

24. GE Lampworks operations produced materials and products related to incandescent light bulbs.

25. The operations of GE Lampworks utilized mercury for manufacturing processes.

26. GE's manufacturing process for incandescent light bulbs included the use of mercury pumps at the Site.

27. The operations of GE Lampworks resulted in the release and/or disposal of mercury into the building materials, soil, groundwater and surface waters at the Site.

28. Mercury was released and disposed of into the building materials, soil, groundwater and surface waters at the Site from the operations of GE Lampworks, including but not limited to: (i) waste disposal activities, (ii) leaks from equipment, and/or (iii) spills during the use of mercury-containing equipment.

C. RCA Radiotron Company, Inc. Acquires GE's Lampworks

29. The Radio Corporation of America was incorporated under the laws of the state of Delaware in 1917. GE owned a controlling interest in the Radio Corporation of America when it was incorporated in 1917.

30. In 1929, the RCA Radiotron Company, Inc. was incorporated to assume the operations of GE Lampworks and manufacture radio tubes.

31. The RCA Radiotron Company, Inc. expanded its operations such that the Site was part of a 9.5-acre campus (the "Campus") consisting of 24 buildings and having a floor area of 626,000 square feet.

32. The RCA Entities manufactured mercury-vapor rectifier tubes and mercury-vapor diodes at its Campus, which included the Site, as well as radio vacuum tubes, glass and metal radio receiving and power tubes, phototubes, gas triodes and tetrodes, cathode-ray and television tubes, voltage regulation tubes, acorn tubes, and special amplifier tubes.

33. GE has stated that RCA produced "more than 65 different miniature tubes, the largest to be made by any tube manufacturer" at the Campus, which included the Site, and that they made "tube parts and machinery for other tube manufacturers, a comprehensive line of electronic components and accessories for the nation's leading producers of television and radio receivers, a wide assortment of test and measuring equipment, and a complete line of dry batteries."

34. In a February 26, 1942 report regarding the security of the RCA Manufacturing Company, Inc.'s operations at Harrison, New Jersey, GE stated that "products manufactured by the Harrison Works of the RCA Manufacturing Company, Incorporated consist of glass and metal radio receiving and power tubes; photo tubes, gas triodes and tetrodes; cathode-ray and television tubes; voltage regulation tubes; acorn tubes and special amplifier tubes."

35. Materials used to manufacture RCA products at the Site included mercury.

36. Mercury was released and disposed of into the soil, groundwater and surface waters at the Site from the operations of some or all of the RCA Entities as a result of activities and occurrences, including but not limited to: (i) waste disposal activities, (ii) leaks from equipment, and/or (iii) spills during the use of mercury-containing equipment.

37. The RCA Entities owned and operated the Site until approximately 1976.

38. GE is the legal successor-in-interest to the RCA Entities as a result of GE's acquisition of RCA Corporation.

D. BRG Conducts Due Diligence Prior to Purchasing the Site

39. BRG executed a contract to purchase the Site in February 2012.

40. BRG retained EWMA in February 2012 to conduct environmental due diligence in connection with BRG's interest in purchasing the Site pursuant to an Environmental Services Agreement between BRG and EWMA, dated February 16, 2012 (the "Environmental Services Agreement") and certain proposals subsequently issued in accordance therewith.

41. In June 2012, AET, under contract with EWMA and pursuant to a March 16, 2012 "Proposal for a Limited Asbestos Survey, Lead-Based Paint Survey & Mercury Assessment," surveyed the interior of Buildings A, B and C for the presence of mercury using a mercury vapor analyzer.

42. AET negligently conducted the mercury vapor survey by failing to use the appropriate device and/or failing to properly set or calibrate the device used to detect mercury in the indoor air in Buildings A, B and C.

43. AET reported mercury vapors in only two isolated locations on the third floor of Building C based on its June 2012 survey. AET reported no mercury vapor detections on any floor in Buildings A and B.

44. In August 2012, AET conducted additional mercury vapor survey work on the third floor of Building C. AET further delineated the two isolated sections of the third floor of Building C where AET had detected mercury vapor concentrations during its June 2012 survey. The delineated areas measured 38 feet by 12 feet in the southwest corner of the third floor of Building C and 4 feet by 14 feet along the northern wall of the third floor of Building C. In aggregate, the delineated areas totaled approximately 512 square feet. As all of the floors of Buildings A, B and C total approximately 192,000 square feet, the delineated area was less than 0.3% of the total square footage of the Buildings.

45. EWMA knew or should have known based on, among other things, the historical operations at the Site and the intended residential use of the Site, coupled with the unprofessional and deficient manner in which AET's mercury survey was presented, that the results and AET's methodology were highly questionable. EWMA, as the consultant, therefore should have questioned the results and checked whether the correct instrument was used and properly calibrated, and either taken measures to ensure that AET conducted a proper mercury survey or retained another qualified professional to do so.

46. In August 2012, EWMA issued an Asbestos Lead Paint and Mercury Vapor Survey Memo.

47. In August 2012, EWMA performed a walkthrough of the Site with potential environmental abatement contractors to solicit proposals to perform mercury remediation. The proposed scope of work included creating a plastic containment area, removing layers of the wood floor as necessary and vacuuming any free mercury in the limited area delineated on the third floor of Building C.

48. On March 21, 2013, EWMA provided BRG an estimated cost to remediate the mercury of $15,000 to $25,000.

49. On March 18, 2014, EWMA provided BRG a written proposal to remediate the mercury for $34,300.

E. GE's Inadequate Investigation of the Site

50. In or around July 2013, Amec Foster Wheeler ("AMEC") was retained by GE to perform the environmental investigation and remediation. Theodore Toskos, an employee of AMEC, is the Licensed Site Remediation Professional ("LSRP") for remedial activities conducted at the Site pursuant to New Jersey's Site Remediation Reform Act, N.J.S.A. 58:10C-1 -29 ("SRRA").

51. Toskos was retained by GE as the LSRP for the Site on August 2, 2013, and his LSRP Retention Form for the Site was filed with NJDEP on August 9, 2013.

52. In or around July 2013, BRG provided GE and AMEC with all of EWMA's environmental investigation work, including the AET mercury survey, and provided EWMA personnel access to the Site.

53. AMEC, at the direction of GE, conducted Remedial Investigation Sampling from May through July of 2014 and collected slab samples, soil samples and groundwater samples at

the Site, which were later incorporated into a Remedial Investigation Report issued in March 2015.

54. AMEC, at the direction of GE, issued a Preliminary Assessment to the New Jersey Department of Environmental Protection ("NJDEP") in September 2014. This Preliminary Assessment did not include the data collected during the Remedial Investigation Sampling.

55. On November 5, 2014, BRG entered into an Indemnification and Settlement Agreement with GE ("Indemnification and Settlement Agreement"). Pursuant to this agreement, GE is required to obtain a Response Action Outcome for the Site ("Site-wide RAO") from its LSRP certifying that remediation of the Site is complete and that the Site is not a risk to human health or the environment.

56. GE provided AMEC's Preliminary Assessment to BRG in advance of entering into the Indemnity and Settlement Agreement.

57. BRG relied upon the information provided by AMEC (on behalf of GE) in negotiating the Indemnification and Settlement Agreement and would not have entered into this agreement had AMEC provided accurate information regarding the mercury contamination at the Site within the Preliminary Assessment.

58. BRG further relied upon the information provided by EWMA and AET in negotiating the Indemnification and Settlement Agreement and would not have entered into this agreement had EWMA and AET provided accurate information regarding the mercury contamination at the Site.

59. In August 2014, BRG retained Langan Engineering & Environmental Services, Inc. ("Langan") to conduct miscellaneous environmental consulting services.

60. On October 9, 2015, following its purchase of the Site in June 2015 and in preparation for conducting the limited mercury abatement on the third floor of Building C, Langan conducted a mercury screening and obtained results inconsistent with the results of the EWMA/AET's investigation and mercury survey in 2012.

61. On October 19, 2015, Langan returned to the Site to conduct a mercury survey in Buildings A and B.

62. Further mercury vapor samples were collected in January 2016 by Site Remediation Group ("SRG"), a sub-contractor hired by EWMA.

63. Mercury concentrations in vapor samples collected by Langan in October 2015 and SRG in January 2016 exceeded NJDEP Rapid Action Levels for Indoor Air ($1\mu g/m^3$) ("RALs"), and federal benchmarks including the Environmental Protection Agency's ("EPA's") reference concentration ($0.3\mu g/m^3$) and the Agency for Toxic Substances and Disease Registry's ("ATSDR's") chronic minimum risk level ($0.2\mu g/m^3$) ("MRL") on all floors of Buildings B and C.

64. Mercury concentrations in vapor samples collected by SRG in January 2016 exceeded EPA's reference concentration and ATSDR's MRL on all three floors of Building A.

65. Mercury concentrations in vapor samples collected by SRG in January 2016 exceeded NJDEP's RALs on the first floor of Building A, and in an overpass between Buildings A and B on the second and third floors.

66. Mercury concentrations in vapor samples collected by Langan in October 2015 exceeded ATSDR's MRL on all three floors of Building A.

67. Mercury concentrations in vapor samples collected by Langan in October 2015 exceeded EPA's reference concentration on the second and third floors of Building A.

68. Mercury concentrations in vapor samples collected by Langan in October 2015 exceeded NJDEP's RALs on the second floor of Building A.

69. In March 2016, elemental mercury was observed under the slab in Building B by BRG's consultant, Gradient (Gradco LLC d/b/a/ "Gradient").

70. BRG has requested that GE fully investigate and remediate the full extent of mercury contamination at the Site, including in the building materials in Buildings A, B and C, and GE has declined to do so.

71. Without a full investigation and remediation of mercury, it should not be possible for GE to obtain a Site-wide RAO.

72. Without a site-wide RAO, BRG cannot proceed with the redevelopment of the property.

F. GE's Recent Work at the Site Has Released Mercury to the Environment and Dispersed Mercury Throughout the Site

73. Between June and August 2012, various underground storage tanks ("USTs") were removed from the Site and visual evidence of a release of contamination was observed and removed from the soil, and NJDEP assigned case # 12-06-06-0920-51 (Program Interest # 020373) under the SRRA.

74. In 2013, AMEC, at the direction of GE, conducted site reconnaissance, removed a stockpile generated by prior UST decommissioning activities on the Site, restored UST excavation areas which had not previously been back-filled, and conducted additional sampling for each UST on the Site.

75. AMEC, at the direction of GE, conducted a Remedial Investigation to determine the extent of trichloroethylene ("TCE") in the soil and groundwater from a 3,000-gallon TCE UST that was decommissioned in 2012.

76. As part of the remedial program to address the TCE contamination at the Site, the prior Site owner operated ventilation fans from October 2013 to June 2015, at the instruction and direction of GE and AMEC, that blew air from the interior of Buildings A and B out into the environment.

77. The ventilation fans in Buildings A and B released mercury from within the Buildings into the environment throughout their two years of operation.

78. Remedial Investigation Sampling conducted by AMEC in the summer of 2014, at the direction of GE, showed mercury contamination in soil and building materials.

79. Despite having knowledge of the mercury contamination at the Site, as set forth in AMEC's Remedial Investigation Report, GE did not stop operating ventilation fans in Buildings A and B.

80. BRG provided mercury vapor results from Langan's October 9, 2015 and October 19, 2015 investigations and from SRG's January 2016 investigation to GE.

81. Despite possessing evidence of mercury contamination at the Site, in December 2015 and January 2016, AMEC, at the direction of GE, saw cut (i.e., cut breaks in concrete using mechanical cutting tools) the floors in Buildings A, B and C.

82. Despite possessing evidence of mercury contamination at the Site, in December 2015 and January 2016, AMEC, at the direction of GE, saw cut and commenced removing layers of wooden flooring located at the eastern section of Building B.

83. Despite possessing evidence of mercury contamination at the Site, in December 2015 and January 2016, AMEC, at the direction of GE, saw cut and commenced removing concrete floor slabs on the south side of Building A.

84. The saw cutting and partial floor removal activities conducted by AMEC, at the direction of GE, released mercury into the environment, dispersing mercury-contaminated dust throughout all of the buildings at the Site, and releasing volatilized mercury from the sub-slab soils into and throughout the buildings.

85. In response to a proposed work plan prepared by BRG to conduct sampling requested by NJDEP, Theodore Toskos sent a letter to GE (Roy Blickwedel) dated October 19, 2016, which was forwarded to BRG's counsel, identifying ways in which BRG's proposed investigation work may result in a release of mercury to the environment, and directing BRG not to conduct the proposed work until implementing certain protective measures to prevent such release from occurring.

86. The remedial investigation sampling conducted by AMEC, at the direction of GE, utilized none of the protective measures identified in Toskos' October 19th, 2016 letter.

87. GE's saw cutting activities and partial floor removal activities in Buildings A, B, and C conducted in December 2015 and January 2016 utilized none of the protective measures identified in Toskos' October 19th, 2016 letter.

88. According to Toskos' opinions expressed in his October 19th, 2016 letter, AMEC risked causing cross-contamination and a release of mercury to the environment by saw cutting and partial floor removal activities in the Buildings at the Site.

89. In June 2016, AMEC, at the direction of GE, conducted further work in Building B.

90. AMEC's June 2016 work, conducted at the direction of GE, released mercury-contaminated dust to the environment.

91. AMEC's June 2016 work, conducted at the direction of GE, caused mercury vapor concentrations to increase above applicable action levels in the AMEC Health and Safety Plan and work had to be stopped.

92. AMEC was unable to perform work in Building C in June 2016 because mercury vapor levels in Building C were so high that additional protective equipment was required under AMEC's protocol. AMEC did not obtain the additional protective equipment and therefore work was halted.

93. GE has not covered the floors in Buildings A and C.

94. GE's actions and omissions in late 2015, early 2016 and June 2016, as described above, have exacerbated mercury contamination throughout Buildings A, B and C, and have released or threatened to release mercury to the environment, including to the soil, groundwater, surface waters, and environment at the Site, and in the indoor air of Buildings A, B and C.

G. GE's Contamination at the Site Constitutes a Present and Ongoing Threat to Public Health and the Environment

95. By reason of GE's operations at, and ownership of the Site, GE has stored, handled and disposed of mercury at the Site.

96. GE has refused to investigate the nature and extent of mercury contamination at the Site, including in building materials.

97. GE has refused to remediate mercury contamination at the Site, including in building materials.

98. The Site, including building materials, is an ongoing source of mercury contamination and may present an imminent and substantial endangerment to health or the environment.

99. The mercury in subsurface soils at the Site represents an ongoing source of mercury contamination to the environment and building materials, and may present an imminent and substantial endangerment to health or the environment.

100. To date no governmental entity has commenced any administrative or judicial proceeding or action seeking to compel GE to fully address the mercury contamination at the Site, including in building materials.

101. The continued presence of mercury at the Site may constitute an imminent and substantial endangerment to health or the environment.

102. In a letter dated August, 2, 2016 (the "Notice Letter", attached hereto as Exhibit "A"), BRG placed GE, EPA, and NJDEP on notice that BRG intended to sue GE as past owners and operators of the Site in compliance with 42 U.S.C. § 6972(b), for "contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment...." 42 U.S.C. § 6972(a)(1)(B).

H. GE Breached the Indemnity and Settlement Agreement by Failing to Conduct Investigation and Remediation of the Mercury Contamination and Failing to Provide Site Data

103. In order to achieve a Site-wide RAO pursuant to the New Jersey SRRA as required under the Indemnity and Settlement Agreement, GE must fully investigate the extent of mercury contamination on the Site, including mercury in building materials.

104. Mercury in the sub-slab soils is entering or may enter the buildings at the Site, and GE's actions and omissions have spread mercury throughout each Building.

105. Mercury in the building materials throughout Buildings A, B and C is entering or may enter the environment through volatilization and deposition.

106. Mercury in the building materials throughout Buildings A, B and C is entering or may enter the environment through the building slabs.

107. Mercury in the building materials throughout Buildings A, B and C is entering or may enter the environment through any openings in the building exterior.

108. EPA's Action Memorandum for the Grand Street Mercury Site in Hoboken, NJ, dated November 18, 1996, stated that there was "a threat of a release of mercury vapor from a major fire at the Grand Street Mercury site that would have significant adverse health effects on the surrounding population, possibly resulting in the death of some exposed individuals."

109. Mercury in the building materials throughout Buildings A, B and C is entering or may enter the environment in the event in the event of a fire at the Site.

110. BRG has repeatedly demanded that GE investigate and remediate the mercury contamination at the Site, including in building materials, and GE has refused and continues to refuse to do so.

111. The Indemnity and Settlement Agreement obligates GE to provide "from time to time, at BRG's reasonable request, copies of final data that has not been included in any final report."

112. BRG formally requested all data in GE's possession or control relating to mercury contamination on the Site on three occasions.

113. On October 7, 2016, one day after the Complaint was filed in the present action, Anchor QEA, at the direction of GE, provided BRG with a Mercury Data Summary Report dated October 2016 ("Anchor QEA Mercury Report").

114. The Anchor QEA Mercury Report includes mercury data that previously had not been provided to BRG.

115. BRG had made previous requests for data that encompassed the mercury data in the Anchor QEA Mercury Report.

116. The Anchor QEA Mercury Report includes off-site mercury vapor monitoring data which shows that the Site is a source of mercury to off-site areas.

117. The data in the Anchor QEA Mercury Report demonstrates that the Site is an ongoing source of mercury contamination that threatens public health or the environment.

118. Inconsistencies in the Anchor QEA Mercury Report indicate that mercury data may be missing.

119. BRG has requested all mercury data and GE continues to refuse to provide the requested data to the extent such data exists that was not included in the Anchor QEA Mercury Report.

120. GE has refused to either undertake an investigation and remediation of the mercury contamination at the Site, or to provide the requested data, despite its insistence that BRG comply with the dispute resolution provisions contained in Section 3(g) of the Indemnity and Settlement Agreement and provide thirty days' notice to GE (the "Dispute Resolution Procedure"), so that GE could address BRG's demands. GE has not responded within 30 days and has neither undertaken an investigation and remediation of the mercury contamination at the Site nor provided the requested data.

121. BRG is entitled to attorneys' fees to enforce the Indemnity and Settlement Agreement with respect to GE's obligations to investigate and remediate mercury contamination at the Site in order to achieve a Site-wide RAO, and with respect to GE's obligation to share Site data reasonably requested by BRG.

122. BRG complied with the Dispute Resolution Procedure outlined in the Indemnity and Settlement Agreement, Section 3(g), by using reasonable good faith efforts for longer than 30 days to negotiate a resolution of the issues relating to completing work necessary to achieve a Site-wide RAO and BRG obtaining Site data.

COUNT ONE

(CERCLA – Cost Recovery: Against GE)

123. BRG repeats and realleges the allegations set forth in the previous paragraphs as if set forth fully herein.

124. CERCLA § 107(a)(1)-(4)(B), empowers "any . . . person" to recover "necessary costs of response" incurred "consistent with the national contingency plan," plus interest, "notwithstanding any other provision or rule of law." 42 U.S.C. § 9607(a)(1)-(4)(B).

125. Persons incurring costs of response ("Response Costs") can recover from any entity that falls within the four categories of parties under CERCLA in the event of (1) a release or threatened release, (2) from a facility, (3) of a hazardous substance, (4) which causes incurrence of Response Costs. *Id.*

126. The four classes of responsible parties under CERCLA include: any person who owned or operated any facility at the time of disposal of hazardous substances at the facility and any person who arranged for disposal or treatment of hazardous substances at any facility. 42 U.S.C. § 9607 (a)(2) and (3).

127. "Hazardous substances" under CERCLA are listed at 40 C.F.R. § 302.4 and include substances that the EPA has listed, or with respect to which the EPA has taken action, under a variety of other environmental laws. 42 U.S.C. § 9601(14)(A), (C)-(F).

128. Mercury (and thus the mercury contamination on the Site) is a "hazardous substance" within the meaning of CERCLA § 101(14). 42 U.S.C. § 9601(14).

129. TCE is a "hazardous substance" within the meaning of CERCLA § 101(14). 42 U.S.C. § 9601(14).

130. The Site is a "facility" within the meaning of CERCLA § 101(9) because it is a place "where a hazardous substance has been deposited, stored, disposed of or placed, or otherwise come to be located." 42 U.S.C. § 9601(9). GE, its predecessor the Edison Lamp Company, and the RCA Entities are "persons" within the meaning of CERCLA § 101(21). 42 U.S.C. § 9601(21).

131. GE, its predecessor the Edison Lamp Company, and the RCA Entities were, at the relevant times of disposal of mercury at the Site, entities who managed, directed, and conducted operations at the Site, and therefore are "operators" within the meaning of CERCLA §§ 101(20)(A) and 107(a). 42 U.S.C. § 9601(20)(A), § 9607(a).

132. GE, its predecessor the Edison Lamp Company, and the RCA Entities were the owners of the Site at the time of disposal of hazardous substances, and as such are "owners" within the meaning of CERCLA §§ 101(20)(A), 107(a). 42 U.S.C. §§ 9601(20)(A), 9607(a).

133. GE, its predecessor the Edison Lamp Company, and the RCA Entities arranged for disposal of hazardous substances at the Site with intent to dispose. As such GE and the RCA Entities "arranged for disposal" of mercury on the Site within the meaning of CERCLA § 107(a)(3). 42 U.S.C. § 9607(a)(3).

134. There has been a "release" or threatened "release" and "disposal" of mercury at the Site within the meaning of CERCLA §§ 101(22) and 107(a). 42 U.S.C. §§ 9601(22), 9607(a).

135. There has been a "release" or threatened "release" and "disposal" of TCE at the Site within the meaning of CERCLA §§ 101(22) and 107(a). 42 U.S.C. §§ 9601(22), 9607(a).

136. BRG is a "person" within the meaning of CERCLA §§ 101(21) and 107(a). 42 U.S.C. §§ 9601(21), 9607(a).

137. The release and/or disposal of mercury at the Site, and GE's failure to investigate and/or remediate that mercury contamination, has caused BRG to incur necessary Response Costs within the meaning of CERCLA §§ 101(25) and 107(a)(4)(B). 42 U.S.C. §§ 9601(25), 9607(a)(4)(B).

138. BRG has incurred Response Costs and will incur additional Response Costs.

139. All of BRG's Response Costs have been and will be incurred in order to investigate and/or remediate the mercury contamination.

140. All Response Costs incurred and to be incurred by BRG have been and will be consistent with the National Contingency Plan, 40 C.F.R. § 300 et seq.

141. GE has succeeded to the liabilities of the RCA Entities.

142. GE has succeeded to the liabilities of the Edison Lamp Company.

143. GE is therefore liable to BRG, jointly and severally, for BRG's Response Costs plus interest in an amount to be determined at trial, including the costs of ongoing operation and maintenance of any remedial system and/or site management activities until such time as any such action is no longer required, pursuant to CERCLA § 107(a). 42 U.S.C. § 9607(a).

144. BRG is entitled to a declaratory judgment that GE shall be liable for necessary future Response Costs consistent with the National Contingency Plan in subsequent actions for further costs relating to the mercury contamination, pursuant to CERCLA § 113(g)(2). 42 U.S.C. § 9613(g)(2).

WHEREFORE, BRG demands judgment against Defendant GE for the following relief:

a. A declaration that GE is jointly and severally liable under CERCLA for any Response Costs that BRG has incurred or may incur in the future in relation to the Site, as well as any judgments, damages, costs, legal fees or any other expenses arising from or relating to the mercury contamination at the Site;

b. Compensatory damages for all Response Costs incurred and to be incurred at the Site;

c. For attorneys' fees and costs; and

d. For such other relief as the Court deems just and equitable.

COUNT TWO

(Breach of Contract: Against GE)

145. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

146. Pursuant to Section 4(a) of the Indemnity and Settlement Agreement, GE undertook to "perform the Environmental Response Activities in a good and workmanlike manner and in accordance with customary industry standards, the direction of the LSRP and then prevailing laws, including Environmental Laws."

147. Section 1(c) of the Indemnity and Settlement Agreement defines "Environmental Response Activities" as "all environmental activities of any kind carried out, in the past or the future, at or near the Site in connection with conditions arising out of GE's or RCA's prior activities at the [Site] . . . all as required to obtain an RAO . . . from an LSRP, and to comply with any and all requirements after issuance of such RAO."

148. Pursuant to Section 4(b) of the Indemnity and Settlement Agreement, GE must "repair or replace any and all damage resulting from its Environmental Response Activities and

shall leave the Property in substantially the same condition as it was prior to the commencement of work."

149. Pursuant to Section 4(c) of the Indemnity and Settlement Agreement, GE is obliged to provide "from time to time, at BRG's reasonable request, copies of final data that has not been included in any final report."

150. GE has stopped performing Environmental Response Activities at the Site in connection with conditions arising out of GE's prior use and discharge of TCE at the Site that are required to obtain a Site-wide RAO, in breach of the Indemnity and Settlement Agreement.

151. GE has refused to perform Environmental Response Activities in connection with conditions arising out of GE's prior use and discharge of mercury at the Site, including the mercury contamination, in breach of the Indemnity and Settlement Agreement.

152. GE has refused to provide to BRG copies of final data that has not been included in any final report, in breach of the Indemnity and Settlement Agreement.

153. As a direct and proximate result of the breaches of the Indemnity and Settlement Agreement by GE, BRG has suffered damages.

WHEREFORE, BRG demands judgment against Defendant GE for the following relief:

a. Compensatory and consequential damages, including but not limited to carrying costs and all past and future investigatory, cleanup and removal costs, including natural resource damages, and compensation for the diminution in value of the Site and attorneys' fees associated therewith to which BRG is entitled at law;

b. To the extent that the Environmental Response Activities include demolition of any or all of the Buildings on the Site (or portions thereof), a declaration that GE is

obligated to restore the Site, including erecting buildings substantially similar to the existing Buildings A, B and/or C;

c. A declaration that GE is liable, jointly and severally, for all investigatory, cleanup and removal costs and expenses that BRG has incurred, or may incur in the future, including natural resource damages, due to GE's discharge of Hazardous Substances and/or environmentally unsound conditions at or on the Site;

d. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

e. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT THREE

(Breach of Contract - Specific Performance: Against GE)

154. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

155. Pursuant to Section 4(a) of the Indemnity and Settlement Agreement, GE undertook to "perform the Environmental Response Activities in a good and workmanlike manner and in accordance with customary industry standards, the direction of the LSRP and then prevailing laws, including Environmental Laws."

156. Section 1(c) of the Indemnity and Settlement Agreement defines "Environmental Response Activities" as "all environmental activities of any kind carried out, in the past or the future, at or near the Site in connection with conditions arising out of GE's or RCA's prior activities at the [Site] . . . all as required to obtain an RAO . . . from an LSRP, and to comply with any and all requirements after issuance of such RAO."

157. Pursuant to Section 4(b) of the Indemnity and Settlement Agreement, GE must "repair or replace any and all damage resulting from its Environmental Response Activities and

shall leave the Property in substantially the same condition as it was prior to the commencement of work."

158. Pursuant to Section 4(c) of the Indemnity and Settlement Agreement, GE is obliged to provide "from time to time, at BRG's reasonable request, copies of final data that has not been included in any final report."

159. BRG has duly performed all terms and conditions of the Indemnity and Settlement Agreement.

160. GE has stopped performing Environmental Response Activities at the Site in connection with conditions arising out of GE's prior use and discharge of TCE at the Site that are required to obtain a Site-wide RAO, in breach of the Indemnity and Settlement Agreement.

161. GE has refused to perform Environmental Response Activities in connection with conditions arising out of GE's prior use and discharge of mercury at the Site, including the mercury contamination, in breach of the Indemnity and Settlement Agreement.

162. GE has refused to provide to BRG copies of final data that has not been included in any final report, in breach of the Indemnity and Settlement Agreement.

163. BRG has no adequate remedy at law for obtaining the data or obtaining a Site-wide RAO from GE's LSRP.

WHEREFORE, BRG demands judgment against Defendant GE for the following relief:

a. Specific performance of the above-mentioned agreement by conveying to BRG all requested data, investigating and remediating the Site, and obtaining a Site-wide RAO;

b. To the extent that the Environmental Response Activities include demolition of any or all of the Buildings on the Site (or portions thereof), a declaration that GE is

obligated to restore the Site, including erecting buildings substantially similar to the existing Buildings A, B and/or C;

c. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

d. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT FOUR

(Contribution Under the New Jersey Spill Compensation and Control Act: Against GE)

164. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

165. Pursuant to the Spill Act, any person who cleans up and removes a discharge of Hazardous Substances has the right of contribution against all other dischargers and persons who are in any way responsible for a discharge of Hazardous Substances.

166. Under N.J.S.A. 58:10-23.11f(a)(2), persons may recover certain cleanup and removal costs. The statute provides in pertinent part:

> Whenever one or more dischargers or persons cleans up and removes a discharge of a hazardous substance, those dischargers and persons shall have a right of contribution against all other dischargers and persons in any way responsible for a discharged hazardous substance or other persons who are liable for the cost of the cleanup and removal of that discharge of a hazardous substance. In an action for contribution, the contribution plaintiffs need prove only that a discharge occurred for which the contribution defendant or defendants are liable pursuant to the provisions of [N.J.S.A, 58:10-23.1 lg]....

167. The mercury discharged at the Site by GE meets the definition of Hazardous Substances under the Spill Act, N.J.S.A. 58:10-23.11b.

168. GE is a person within the meaning of N.J.S.A. 58:10-23.11b.

169. GE is a discharger and person in any way responsible for Hazardous Substances discharged at the Site, and is strictly liable, jointly and severally, without regard to fault, for all

cleanup and removal costs incurred by BRG, including, but not limited to, the costs of investigation, cleanup and removal of hazardous substances, consulting fees, legal fees and other costs incurred pursuant to the Spill Act, N.J.S.A. 58:10-23.11a-23.11z.

170. In connection with the discharges of Hazardous Substances, BRG has acted to investigate and delineate contamination at the Site. As a result, BRG has incurred costs and expenses associated therewith and may in the future incur costs and expenses associated therewith.

171. By reason of the foregoing, Defendant GE is strictly liable, jointly and severally, without regard to fault, for investigatory, cleanup and removal costs incurred, or to be incurred by BRG.

WHEREFORE, BRG demands judgment against GE for the following relief:

a. All past and future investigatory, cleanup and removal costs, including attorneys' fees associated therewith, to be allocated by the Court using such equitable factors as the Court determines appropriate;

b. A declaration that GE is solely liable for all investigatory, cleanup and removal costs and expenses that BRG has incurred, or may incur in the future, including natural resource damages, due to GE's discharge of Hazardous Substances at the Site;

c. Indemnification holding BRG harmless against any and all suits or claims by the NJDEP and other state and federal agencies and any other person or entity for claims arising from Hazardous Substances for which GE is legally responsible;

d. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

e. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT FIVE

(Nuisance: Against GE)

172. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

173. GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' acts and omissions caused or contributed to the discharge of Hazardous Substances at the Site or portions thereof including the Buildings, which constituted an interference with the use and enjoyment of the Site by BRG.

174. BRG, as the current owner, has a possessory interest in the Site.

175. GE's acts and omissions at the Site substantially interfered with BRG's use and enjoyment of the Site.

176. GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' acts and omissions were reckless, negligent, intentional, abnormally dangerous, or done with malice and with a wanton and willful disregard for any harm to the Site or BRG.

177. As a direct, proximate and foreseeable consequence of the private nuisance GE, its predecessor the Edison Lamp Company, and the RCA Entities created, BRG has sustained damages.

WHEREFORE, BRG demands judgment against GE for the following relief:

a. All past and future investigatory, cleanup and removal costs, including natural resource damages, and compensatory, consequential, and punitive damages;

b. A declaration that GE is solely liable for all investigatory, cleanup and removal costs and expenses that BRG has incurred, or may incur in the future, including natural resource damages, due to GE's discharge of Hazardous Substances at the Site;

c. Indemnification holding BRG harmless against any and all suits or claims by the NJDEP and other state and federal agencies and any other person or entity for claims arising from Hazardous Substances for which GE is legally responsible;

d. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

e. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT SIX

(Negligence: Against GE)

178. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

179. GE, its predecessor the Edison Lamp Company, and the RCA Entities owed BRG and the public a duty of care to conduct their business in a sound manner avoiding the creation of property damage or environmental harm.

180. GE, its predecessor the Edison Lamp Company, and the RCA Entities breached this duty of care by negligently causing, permitting or allowing the improper and illegal discharge of Hazardous Substances at, on, from or under the Site or portions thereof including the buildings.

181. As a result of GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' negligent acts and omissions, the Site and the public have been and may continue to be damaged.

182. BRG has incurred, and may continue to incur, costs to investigate and remedy the environmental contamination at the Site, including the mercury contamination.

183. GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' negligence is the direct cause of the environmental contamination at the Site and the direct cause of BRG's damages.

184. Because of GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' negligence and the resultant discharge of Hazardous Substances, including mercury, BRG has suffered damages including a diminution in the value of the Site.

WHEREFORE, BRG demands judgment against GE for the following relief:

a. All past and future investigatory, cleanup and removal costs, including natural resource damages, and compensatory, consequential, and punitive damages;

b. A declaration that GE is solely liable for all investigatory, cleanup and removal costs and expenses that BRG has incurred, or may incur in the future, including natural resource damages, due to GE's discharge of Hazardous Substances at the Site;

c. Indemnification holding BRG harmless against any and all suits or claims by the NJDEP and other state and federal agencies and any other person or entity for claims arising from Hazardous Substances for which GE is legally responsible;

d. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

e. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT SEVEN

(Strict Liability: Against GE)

185. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

186. GE, its predecessor the Edison Lamp Company, and the RCA Entities owed BRG and the public a duty of care to conduct its business in a sound manner avoiding the creation of property damage or environmental harm.

187. GE, its predecessor the Edison Lamp Company, and the RCA Entities brought onto or permitted the presence and use of Hazardous Substances at, on, from or under the Site or portions thereof that are not naturally occurring on the Site.

188. GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' use or discharge of such Hazardous Substances at the Site or portions thereof, under all of the relevant circumstances, constituted an abnormally dangerous activity.

189. As a result of GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' abnormally dangerous activity, i.e., the use of Hazardous Substances, the Site became contaminated, including the mercury contamination.

190. Because of the contamination caused by GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' abnormally dangerous activities, BRG has incurred, and may continue to incur, substantial costs to investigate and remedy the environmental contamination, including the mercury contamination, at, on, from or under the Site.

191. Because of GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' abnormally dangerous activity, and the resultant discharge of Hazardous Substances, BRG has suffered damages including a diminution in the value of the Site.

192. By reason of the foregoing, GE is strictly liable, jointly and severally, to BRG for its damages and injuries.

WHEREFORE, BRG demands judgment against GE for the following relief:

a. All past and future investigatory, cleanup and removal costs, including natural resource damages, and compensatory, consequential, and punitive damages;

b. A declaration that GE is solely liable for all investigatory, cleanup and removal costs and expenses that BRG has incurred, or may incur in the future, including natural resource damages, due to GE's discharge of Hazardous Substances at the Site;

c. Indemnification holding BRG harmless against any and all suits or claims by the NJDEP and other state and federal agencies and any other person or entity for claims arising from Hazardous Substances for which GE is legally responsible;

d. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

e. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT EIGHT

(Legal and/or Equitable Restitution: Against GE)

193. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

194. In the event BRG does not recover in whole or part on Counts One through Seven, BRG pleads in the alternative cause(s) of action for legal and/or equitable restitution.

195. GE is and was aware that BRG has incurred and will incur costs and expenses in response to mercury contamination on the Site released and disposed of by GE and its predecessors.

196. GE owes a continuing duty to remedy the harm caused by the mercury contamination on the Site caused by GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' actions and inactions.

197. The costs and expenses incurred and to be incurred by BRG in response to the mercury contamination on the Site should be borne by GE.

198. GE has received a benefit as a result of BRG's actions to investigate the mercury contamination on the Site insofar as GE should have borne the costs and expenses of such investigation.

199. GE has accepted the benefit of BRG's actions to investigate the mercury contamination on the Site.

200. GE has failed, and continues to fail to remedy the harm caused by GE's, its predecessor the Edison Lamp Company's, and the RCA Entities' actions and inactions.

201. Because BRG has suffered harm and incurred past costs and will incur future costs and expenses that should be borne by GE, GE has been unjustly enriched at BRG's expense.

202. An injustice would result if GE did not reimburse and make whole BRG for costs and expenses incurred and to be incurred in response to the mercury contamination on the Site.

203. By reason of the foregoing, GE is liable to BRG in restitution by law, statute, equity, or otherwise for damages in an amount to be determined at trial, including but not limited to the Response Costs.

WHEREFORE, BRG demands judgment against GE for the following relief:

a. A declaration that GE is liable to BRG for legal and/or equitable restitution and ordering GE to pay BRG recompense and damages;

b. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

c. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT NINE

(Negligence/Malpractice: Against EWMA and AET)

204. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

205. EWMA and AET, as environmental engineers/consultants, were required to exercise due care in the performance of their duties at the Site, including with respect to all aspects of the detection and surveying of mercury.

206. AET failed to exercise due care in sampling and detecting and surveying the mercury, including, but not limited to, failing to use the proper equipment.

207. EWMA was negligent in failing to question AET's mercury survey results in light of the historical operations at the Site and the planned residential use of the Site, coupled with the manner in which those survey results were presented, and, in turn, to either take measures to ensure that AET conducted proper mercury surveying at the Site or retain another qualified professional to do so.

208. BRG has been damaged as a result of EWMA's and AET's negligence.

WHEREFORE, BRG demands judgment against EWMA and AET for the following relief:

a. A declaration that EWMA and AET are liable to BRG for negligence/malpractice and ordering EWMA and AET to pay BRG recompense and damages;

b. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

c. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT TEN

(Breach of Contract: Against EWMA)

209. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

210. EWMA and BRG were parties to the Environmental Services Agreement, under which EWMA agreed to perform certain services in accordance with proposals to be issued in accordance therewith and to do so in a good and workmanlike manner, and in accordance with professional and industry standards prevailing at the time the Work (as defined therein) was performed and in accordance with Law.

211. The Environmental Services Agreement further provided that EWMA "shall indemnify, defend and hold [BRG], its subsidiaries, affiliates, officers, directors, agents and employees and such other parties in interest specified by [BRG], harmless, from and against any and all claims, liabilities, losses, damages, penalties and costs, arising from the negligent or willful acts of [EWMA]."

212. In the Environmental Services Agreement, EWMA acknowledged that "the services to be performed pursuant to this Agreement are unique and personal in nature, and [EWMA] shall not assign its rights or obligations under this Agreement."

213. EWMA breached the Environmental Services Agreement by failing to perform in a workmanlike manner the services BRG compensated EWMA to perform. EWMA's breach included failing to question AET's mercury sampling results in light of the historical operations at the Site and planned residential use, coupled with the manner in which those results were presented, and, in turn, to either take measures to ensure that AET conducted proper mercury sampling at the Site or retain another qualified professional to do so.

214. BRG has been damaged as a result of EWMA's breach of the Environmental Services Agreement, and EWMA is obligated to indemnify BRG in addition to being liable for any and all damages resulting from EWMA's breach of the Environmental Services Agreement.

WHEREFORE, BRG demands judgment against EWMA for the following relief:

a. Specific performance of the Environmental Services Agreement;

b. All past and future investigatory, cleanup and removal costs, including natural resource damages, and compensatory, consequential, and punitive damages;

c. A declaration that EWMA is liable for all investigatory, cleanup and removal costs and expenses that BRG has incurred, or may incur in the future, including natural resource damages, due to GE's discharge of Hazardous Substances at the Site and EWMA's breach of the Environmental Services Agreement;

d. Indemnification holding BRG harmless against any and all suits or claims by the NJDEP and other state and federal agencies and any other person or entity for Hazardous Substances for which EWMA is legally responsible;

e. Interest, costs and expenses (including attorneys' fees) relating to this litigation; and

f. Such other and further relief as this Court deems just, equitable, and appropriate.

COUNT ELEVEN

(RCRA Injunctive Relief: Against GE)

215. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

216. BRG and GE are "persons" as defined by RCRA. 42 U.S.C. § 6903(15).

217. Mercury is both a "hazardous waste" and a "solid waste" within the meaning of RCRA. 42, U.S.C. §§ 6903(5), (27).

218. GE has disposed of mercury at the Site, within the meaning of RCRA's definition of "disposal." 42 U.S.C. § 6903(3).

219. GE has handled and stored mercury at the Site, within the meaning of "handling" and "storage" contained in RCRA. 42 U.S.C. §§ 6903(33), 6972(a)(1)(B).

220. GE's failure to investigate and remediate the mercury contamination at the Site, including in building materials, has caused the mercury to enter the environment.

221. GE's disposal, handling and storage of mercury at the Site may present an imminent and substantial endangerment to health or the environment.

222. GE's work at the site, including saw-cutting and partial floor removal activities in Buildings A, B, and C, has presented and is presenting an imminent and substantial endangerment to health or the environment.

223. Absent remediation of the mercury contamination present at the Site, including in the building materials, the environment or public health may continue to be endangered.

224. This Court has jurisdiction pursuant to 42 U.S.C. § 6972(a) to order GE to take any action necessary to restrain or abate the endangerment to public health and the environment posed by GE's disposal, handling and storage of mercury at the Site.

225. Despite timely notice to GE, EPA, and NJDEP, neither EPA, NJDEP, nor GE have commenced or otherwise agreed to be responsible for any permanent remedial action to address mercury contamination at the Site.

226. BRG has complied with the citizen suit notice provisions of RCRA.

WHEREFORE, BRG demands judgment against GE for the following relief:

a. Injunctive relief ordering GE to investigate, remediate and fully abate the mercury contamination at the Site, including in building materials, in order to eliminate the endangerment to the public's health and the environment;

b. Reasonable attorneys' fees, expert witness fees, and costs incurred in bringing this action, as authorized by 42 U.S.C § 6972(e); and

c. Such other and further relief as the Court deems just and proper.

COUNT TWELVE

(New Jersey Environmental Rights Act, N.J.S.A. 2A:35A-1, et seq.: Against GE)

227. BRG repeats and realleges the allegations contained in the previous paragraphs as if set forth at length herein.

228. BRG and GE are each a "person" within the meaning of the New Jersey Environmental Rights Act ("ERA"), N.J.S.A. 2A:35A-3(a).

229. GE's discharges of mercury at the Site, and GE's failure to remediate that contamination, violates state statutes, regulations and/or ordinances designed to prevent or minimize pollution and the impairment or destruction of property and the environment, including, but not limited to the Spill Act and the SRRA.

230. The Spill Act prohibits the discharge of hazardous substances, including mercury, into the environment and imposes joint and several liability for all cleanup and removal costs on any person who has discharged a hazardous substance or is in any way responsible for the hazardous substance. N.J.S.A. 58:10-23.11g(c)(1).

231. The SRRA imposes an affirmative obligation to remediate a discharge of hazardous substances, including mercury, on any person liable for the discharge pursuant to the Spill Act. N.J.S.A. 58:10B-1.3a.

232. Pursuant to the Spill Act and the SRRA, GE is responsible for the remediation of the mercury it discharged at the Site and all costs and expenses related in any way thereto, whether incurred in the past or still to be incurred, and pursuant to N.J.S.A. 58:10B-1.3, GE is obligated to remediate the mercury contamination discharges.

233. Pursuant to the New Jersey Environmental Rights Act, N.J.S.A. 2A:35A-1-14, BRG has the right to maintain this action seeking relief against GE for the protection of the environment from pollution and/or contamination.

234. Proper written notice was provided to the Attorney General, the New Jersey Department of Environmental Protection, the governing body of the Township of Harrison and GE by letter dated October 7, 2016, which was delivered by Certified Mail, Return Receipt Requested.

WHEREFORE, BRG demands judgment against GE for the following relief:

a. Injunctive relief ordering GE to investigate, remediate and fully abate the mercury contamination at the Site, including in building materials; and

b. Indemnification holding BRG harmless against any and all suits or claims by the NJDEP and other state and federal agencies and any other person or entity for Hazardous Substances for which EWMA is legally responsible;

c. Interest, costs and expenses, including reasonable counsel and expert witness fees pursuant to N.J.S.A. 2A:35A-10; and

d. Such other and further relief as this Court deems just, equitable, and appropriate.

Dated: West Orange, New Jersey
November 17, 2016

Respectfully submitted,

CHIESA SHAHINIAN & GIANTOMASI PC
Attorneys for BRG Harrison Lofts Urban Renewal LLC

By: s/Dennis M. Toft
DENNIS M. TOFT
dtoft@csglaw.com
One Boland Drive
West Orange, NJ 07052

SIVE, PAGET & RIESEL, P.C.
Attorneys for BRG Harrison Lofts Urban Renewal LLC
MARK A. CHERTOK, ESQ.
mchertok@sprlaw.com
MARGARET C. MACDONALD, ESQ.
mmacdonald@sprlaw.com
460 Park Avenue
New York, New York 10022
(212) 421-2150
(212) 421-1891 (fax)
Pro hac vice admission pending

LOCAL CIVIL RULE 11.2 CERTIFICATION

I, Dennis M. Toft, admitted to the bars of the State of New Jersey and this Court, and a member of the law firm of Chiesa Shahinian & Giantomasi PC, attorneys for Plaintiff BRG Harrison Lofts Urban Renewal LLC with respect to the above-referenced matter, hereby certify, upon information and belief, that this matter is not the subject of any other action pending in any court, or of any pending arbitration or administrative proceeding.

Dated: November 17, 2016

CHIESA SHAHINIAN & GIANTOMASI PC
Attorneys for Plaintiff BRG Harrison Lofts Urban Renewal LLC

By: s/Dennis M. Toft
DENNIS M. TOFT

CERTIFICATION PURSUANT TO L. CIV. R. 201.1

1. I am an attorney-at-law of the State of New Jersey, and a Member of the law firm of Chiesa Shahinian & Giantomasi PC, in the above-captioned matter. I submit this certification pursuant to L. Civ. R. 201.1.

2. Based upon my review of the file in this matter, it appears that the damages recoverable exceed the sum of $150,000.00, exclusive of interest and costs.

3. Accordingly, it is respectfully submitted that this matter is not subject to compulsory arbitration, pursuant to L. Civ. R. 201.1.

I hereby certify that the foregoing is true and correct.

Dated: November 17, 2016

CHIESA SHAHINIAN & GIANTOMASI PC
Attorneys for Plaintiff BRG Harrison Lofts Urban Renewal LLC

By: s/Dennis M. Toft
DENNIS M. TOFT

EXHIBIT A

SIVE PAGET & RIESEL P.C.

Chiesa Shahinian & Giantomasi PC

August 2, 2016

VIA REGISTERED MAIL

Jeffrey R. Immelt, Chairman of the Board
And Chief Executive Officer
General Electric Company
3135 Easton Turnpike
Fairfield, CT 06828

See attached List of Recipients

Re: Notice of Intent to Sue General Electric Company for Imminent and Substantial Endangerment pursuant to the Resource Conservation and Recovery Act from the former General Electric/RCA Plant at 400 South 5th Street in Harrison, NJ

Dear Sirs and Madams:

Sive, Paget & Riesel P.C. and Chiesa Shahinian & Giantomasi PC jointly represent BRG Harrison Lofts Urban Renewal, LLC ("BRG") in connection with the above-referenced matter. This letter constitutes the notice of intent of BRG Harrison Lofts Urban Renewal LLC ("BRG") to sue General Electric Company ("GE") as the past owner and operator of, and generator of solid or hazardous waste,[1] at a facility known as the former Edison Lamp Works Site, comprised principally of three buildings (Building A, B, and C, collectively "Buildings") located at 400 South 5th Street in Harrison, Hudson County, New Jersey (the "Site" depicted in Exhibit A attached hereto).[2]

BRG is the current owner of the Site, and has plans to develop the Site into lofts for residential use. The contact information for BRG is Christopher Albanese/Thomas A. Berkenkamp, BRG Harrison Lofts Urban Renewal LLC, c/o Albanese Organization, 1050 Franklin Avenue, Garden City, NY 11530, (516)-746-6000. The Site is contaminated, inter alia, with mercury, a solid or hazardous waste, which may present an imminent and substantial endangerment to health or the environment.

This notice letter is being submitted by BRG in accordance with 42 U.S.C. § 6972(b) of RCRA, and 40 C.F.R. § 254.1 et seq., which specify that notice shall be given to, among others, any person alleged to have contributed to or be contributing to the past or present handling, storage,

[1] As defined in the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq. ("RCRA").
[2] In addition to the Buildings, the Site includes the parking lot located at the southwest corner of Bergen Street and South 5th Street. The Site is comprised of lots designated as Block 131, Lot 17 and Block 156 Lot 1 in the Town of Harrison.

treatment, transportation, or disposal of any solid or hazardous waste that may present an imminent and substantial endangerment to health or the environment.

As is set forth below, GE's activities at the Site have contributed to the handling, storage and disposal of mercury at the Site that may present an imminent and substantial endangerment to human health or the environment; GE is therefore liable under RCRA for the investigation and remediation of such contamination at the Site. The information in the letter is derived primarily from certain investigatory work and monitoring conducted by or on behalf of GE, together with information gathered by BRG.

Site characterization activities conducted to date, although limited in scope, demonstrate that the Buildings are an ongoing source of mercury to the environment. Limited samples have been analyzed for concentrations of mercury at the Site in indoor air, soil, groundwater, and certain building materials. Mercury vapor concentrations exceed the federal benchmarks, i.e., the Environmental Protection Agency's ("EPA's") reference concentration (0.3 $\mu g/m^3$) and the Agency for Toxic Substances and Disease Registry's ("ATSDR's") chronic minimum risk level (0.2 $\mu g/m^3$), on every floor of each of the three Buildings. (See Exhibits B and C hereto, which are measurements of mercury vapor in the Buildings A, B and C taken by Langan Engineering & Environmental Services, Inc. ("Langan") and the SRG Site Remediation Group LLC in October 2015 and January 2016, respectively.)[3] The highest observed mercury vapor concentrations in indoor air at the Site exceeded the measurement range of the instrument used to screen the buildings for mercury vapor (>50 $\mu g/m^3$), which demonstrates that such concentration was at least 250 times over ATSDR's chronic minimum risk level. Visible globules of elemental mercury have been observed underneath the first floor slab of Building B and may be present under or within the other Buildings. Furthermore, based on the elevated levels of mercury vapors measured within the Buildings, sources of elemental mercury may be present elsewhere, including the second and third floors of the Buildings. Samples of concrete collected from former equipment sump and pit slabs found elevated concentrations of mercury (up to 650 mg/kg) (see Exhibit D, AOC-L Building B Soil Sample Results, Sumps and Pits, conducted by AMEC Environmental & Infrastructure, Inc. ("AMEC") in June 2014 at Sample SB-PIT-B-SLAB at 1.0-1.5 [L1414459-18]);[4] mercury concentrations in soils underlying these areas (up to 26 mg/kg) exceed New Jersey's Impact to Groundwater Soil Screening Level (0.1 mg/kg). (See Exhibit D and Exhibit E, AOC-L Building B Pits, Soil Sample Results, conducted by AMEC in June 2014.)

The limited sampling conducted to date demonstrates that the Buildings are an ongoing source of mercury to the environment and may pose an imminent and substantial endangerment to human health or the environment. The sampling also demonstrates the need to undertake a comprehensive study to fully characterize conditions within the Buildings, to define the full extent of the contribution of mercury contamination from the Buildings to the environment, and to evaluate and implement appropriate remedial measures.

GE has refused BRG's requests for GE to conduct investigations at the Site to determine the full extent of mercury contamination and to develop and implement a remedial program for

[3] Langan was retained by BRG, and SRG was a sub-contractor of EWMA, who was also retained by BRG.
[4] AMEC was retained by GE. Although it conducted the subject sampling in June 2014, Exhibit D is dated January 13, 2015.

the Site to address such contamination (including a remedial program that would allow residential use of the Buildings).

Site History

In 1882, the Edison Lamp Company acquired 420 South 5th Street (called "Building C" herein), moved onto the Site and utilized the property to design, test and manufacture incandescent light bulbs. In 1889 the Edison Lamp Company was consolidated into the Edison General Electric Company, and in 1892 the Edison General Electric Company and the Thompson-Houston Electric Company were consolidated to create GE. GE constructed the building located at 530 Bergen Street ("Building B") in 1907 and the building located at 400 South Fifth Street ("Building A") in 1913/14. GE owned/operated the Site until approximately 1929 and produced various types of lightbulbs there. GE used mercury pumps in the manufacture of lightbulbs at the Site. In 1930, Radio Corporation of America ("RCA") purchased the Site and manufactured radio vacuum tubes there. RCA owned and operated the Site until approximately 1976; in addition to radio vacuum tubes, RCA also manufactured glass and metal radio receiving and power tubes, phototubes, gas triodes and tetrodes, cathode-ray and television tubes, voltage regulation tubes, acorn tubes, and special amplifier tubes at the Site. RCA's radio vacuum tube manufacturing processes would typically have continued to use mercury during this time.[5]

GE acquired RCA in or about 1986 and thus has succeeded to RCA's liabilities; therefore, GE is liable for the handling, storage, treatment and disposal of solid or hazardous waste at the Site that occurred as a result of Site operations from the late 1800s through 1976.

RCRA Liability

Pursuant to the RCRA citizen suit provision, 42 U.S.C. § 6972, BRG hereby puts GE on notice that BRG intends to sue GE as the prior owner, operator and generator of solid or hazardous waste at the Site for "contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment …." 42 U.S.C. § 6972(a)(1)(B).

GE and RCA handled, stored and disposed of mercury, which is a solid waste or a hazardous waste. The term "solid waste" means:

> any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities…

42 U.S.C. § 6903(27). Mercury is also a hazardous waste due to its toxicity (D009), and discarded elemental mercury product, off-specification metallic mercury product, and container or spill residues thereof are listed hazardous wastes (U151).

[5] Historical documents provided to BRG ("GE Historical Documents") list mercury as one of the materials used in RCA radio tubes.

GE and RCA disposed of mercury at the Site, including in the Buildings during their manufacturing operations. "Disposal" is defined as:

> a discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

40 C.F.R. § 260.10. In addition to dumping and spilling waste into the environment, RCRA disposal includes (but is not limited to) releasing a solid or hazardous waste in such a way that such waste might enter the environment if left unremediated (e.g., disposal inside a building where there is a pathway for the waste to escape the building).

GE and RCA also stored and handled mercury at the Site. The term "storage," when used in connection with hazardous waste, means "the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste." 42 U.S.C. § 6903(33).[6] Courts have relied on the common dictionary definition of "handle" to determine whether a defendant will be liable under RCRA for "handling" hazardous wastes. "[I]n ordinary usage, to 'handle' something is 'to deal with or have responsibility' for it."[7] GE and RCA, during the course of their respective operations at the Site, stored and handled mercury that now may present an imminent and substantial endangerment to health or the environment.

The existence of mercury in the Buildings on the Site and in the soils at the Site may present an imminent and substantial endangerment to health or the environment. In particular, mercury may enter the environment directly from building materials, through flaking off of building exterior materials into soils and further dispersion into the environment, migration into and through the building slabs, tracking of mercury-contaminated dust from inside the building to the environment, or through volatilization in the air. For example, GE and the prior owner of the Site operated ventilation fans in Buildings A and B from the fall of 2013 through the fall of 2015. Mercury would have entered the environment during the course of ventilation. The ventilation system principally faced two public streets (Bergen Street and South Sixth Street) – both of which are developed with residential properties. The fans are no longer in operation, but as a result of their operation mercury contamination is expected to be on the exterior and/or in the vicinity of Buildings A and B, which may be washed or blown off from the building exteriors into the environment.

GE knew or should have known about the presence of mercury at the Site based on its knowledge of the Site history and experience in remediating other similar facilities across the country. In fact, AMEC (a consulting firm retained by GE) collected samples from the slab in Building B in June 2014 that showed elevated levels of mercury in at least 10 locations. (See Exhibit D.) Similarly, soil samples taken by AMEC in June 2014 showed mercury below the slab in Building B. (See Exhibit E.) Despite this data in GE's possession, GE saw cut the slabs in all

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[6] Presumably, the same or similar definition would apply to the storage of solid waste.

[7] Lincoln Properties, Ltd. v. Higgins, No. CIV. S-91-760DFL/GGH, 1993 WL 217429, at *15 (E.D. Cal. Jan. 21, 1993) (citing American Heritage Dictionary 592 (2nd College ed.1985).

three Buildings in December 2015 and January 2016, and partially removed layers of wooden flooring in Building B and concrete slabs in Building A in the late 2015 to early 2016 timeframe, without taking adequate precautions to prevent mercury from being released to the environment and from permeating into building materials through volatilization, deposition or dispersal of mercury-contaminated dust during saw cutting activities. GE's actions exacerbated the contamination at the Site, creating another pathway for mercury to enter the environment.

GE and its consultants have had continuous access to the Site to perform GE's obligations under New Jersey law. Most recently, GE's consultants have controlled access to the Site buildings. GE's failure to take due care and/or implement appropriate precautions in performing these activities at the Site may have caused a release of mercury to the environment, including but not limited to work conducted in late June-early July 2016 in Building B. For example, GE generated considerable dust from vacuuming operations, which triggered an exceedance of applicable action levels of mercury vapors and a suspension of work; the vacuuming operations were conducted with windows and possibly a large garage door open.

The mercury in the Buildings could also be released to the environment in the event of a fire at the Site, which may pose an imminent and substantial endangerment to human health or the environment. The high mercury vapor concentrations recorded in indoor air within the Buildings is an indication that elemental mercury is present in one or more of the Buildings. A fire at the Site, particularly in Building C – a building with a wooden frame and floors – would release mercury via: a) volatilization of elemental mercury due to the heat of fire; b) airborne transport of mercury-contaminated particulates; and c) release of mercury-contaminated runoff water used for firefighting operations. The only fire suppression system in Building C is a "dry standpipe system," which requires firefighters to hook up water from street level inside the building. In a similar case at a site where GE had previously manufactured mercury vapor lightbulbs in Hoboken, NJ, EPA recognized a significant threat from the impacts of the mercury vapors released from a potential fire at buildings contaminated with mercury. In making this determination, EPA cited potential for impacts from acute exposure to high concentrations of mercury vapor, which include severe pulmonary toxicity, and can lead to death. Modeling conducted by EPA to predict ambient air concentrations in the event of a fire at the building at the Hoboken Site (that was comparable in size to Building C), confirms that a fire in Building C at the Site would cause mercury ambient air concentrations to exceed ATSDR's "Immediately Dangerous to Life or Health" ("IDLH") benchmark.[8]

At the close of the 90-day notice period initiated by this letter and (any agreed forbearance period), BRG intends to file a citizen suit against GE pursuant to 42 U.S.C. § 6972(a)(1)(B). BRG

[8] In the air dispersion modeling at the Hoboken Site, EPA only considered the mass of mercury present in a small portion of the building (1,000 lbs), and predicted downwind mercury concentrations as high as 198 mg/m^3 compared to an IDLH of 10 mg/m^3. (See EPA Action Memorandum, an excerpt of which is attached hereto as Exhibit F.) Since mercury vapor concentrations in Building C (as reflected in Exhibits B and C) are on the same order of magnitude as those measured concentrations in the Hoboken building, the mass of mercury in Building C may be comparable to that in the Hoboken Site. (Hoboken vapor concentrations used to initially assess risk to health and the environment are contained in Attachment 3 of the EPA Memorandum for Grand Street Mercury site dated November 8, 1996: mercury vapor survey reports prepared by Roy F. Weston Inc. January 2, and February 13, 1996). However, even if the mercury mass at Building C were an order of magnitude less than what was assumed by EPA in the air dispersion modeling at Hoboken (*i.e.*, 100 lbs), the resulting mercury concentration in ambient air would still exceed ATSDR's IDLH, and endanger public health.

intends to seek injunctive and other appropriate relief mandating GE to abate any continuing imminent and substantial endangerment that arises from the mercury contamination at the Site. This Notice of Intent to Sue covers all RCRA violations by GE preceding the date of this letter and covers all future violations.

Conclusion

These claims are not exclusive. On the contrary, this letter is made without waiver of or any prejudice to the right(s) of BRG to advance any legal, equitable and/or factual argument, including any federal claim for relief and/or state law cause of action, based upon information or facts that are now known and/or may become known in the future arising from the same controversy described herein.

During the 90-day RCRA notice period, and during any extended period agreed to by the parties, we will be willing to discuss effective remedies for the mercury contamination described in this letter. At the close of the 90-day notice period, unless significant progress is made in remedying these violations, BRG intends (as noted above) to file a citizen suit against GE under 42 U.S.C. § 6972(a)(1)(B).

This is also to inform you that BRG intends to seek a Directive from the New Jersey Department of Environmental Protection pursuant to the New Jersey Spill Compensation and Control Act unless GE agrees within 30 days to remediate the mercury contamination.

If you wish to discuss these matters further, please do not hesitate to call the undersigned.

Very truly yours,

Sive, Paget & Riesel, P.C.

By: _____

Mark A. Chertok
460 Park Avenue, 10th Floor
New York, New York 10520
Tel. No.: (212) 421-2150
mchertok@sprlaw.com

-And-

Chiesa Shahinian & Giantomasi PC

By: _____

Dennis M. Toft
One Boland Drive
West Orange, NJ 07052
Tel. No.: (973) 530-2014
dtoft@csglaw.com

Recipient List

Gina McCarthy
Administrator
United States Environmental Protection Agency
401 Main Street, A-100
Washington, D.C. 20460

Judith Enck
US EPA Regional Administrator
Region 2
290 Broadway
New York, NY 10007-1866

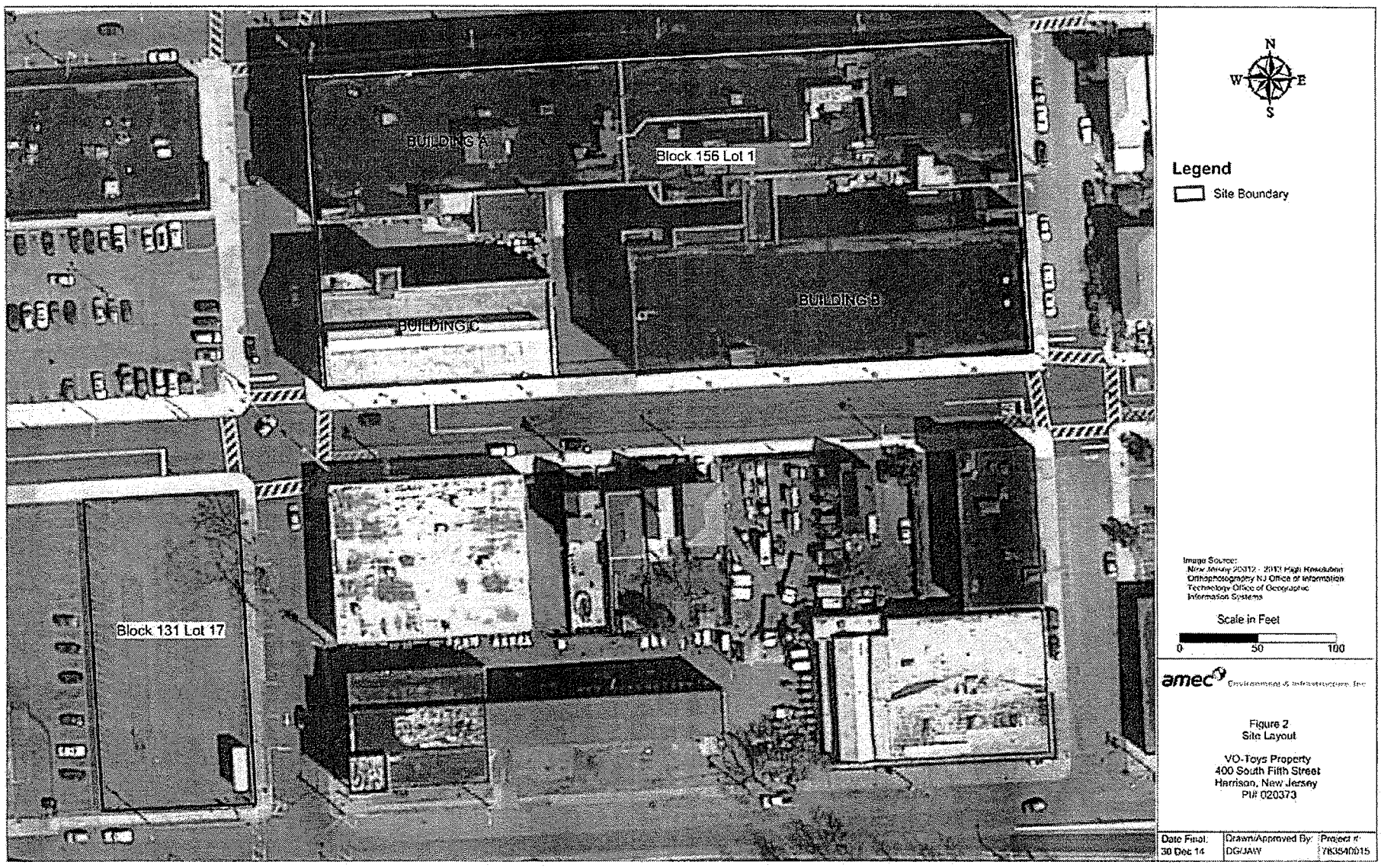
Bob Martin
Commissioner
New Jersey Department of Environmental Protection
401 E. State St., 7th Floor, East Wing
P.O. Box 402
Trenton, NJ 08625-0402

Roger Florio, Esq.
Counsel, Environmental Matters
GE Corporate Environmental Programs
640 Freedom Business Center
King of Prussia, PA 19406

The Corporation Trust Company
820 Bear Tavern Road
West Trenton, NJ 08628

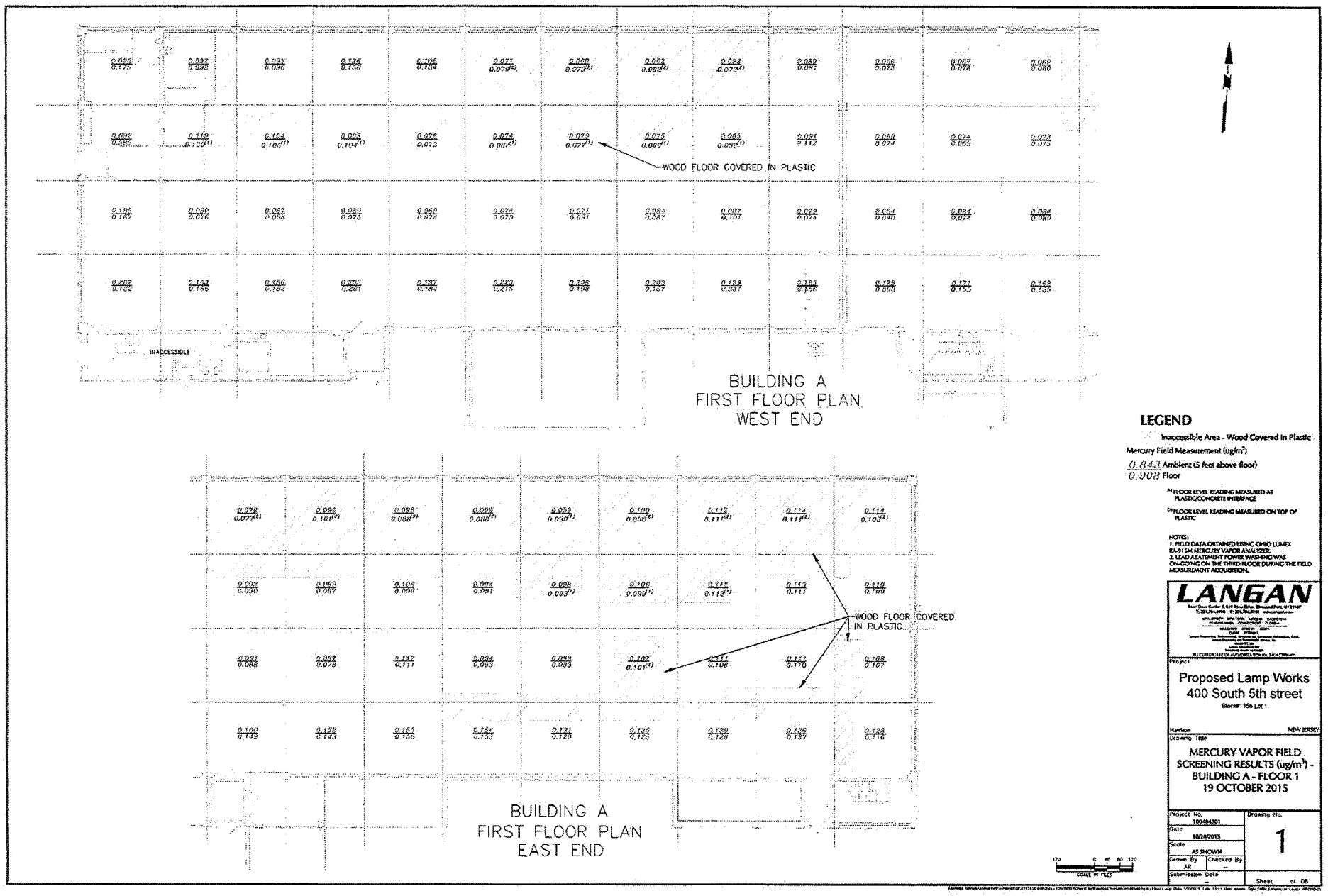
The Corporation Trust Company
P.O. Box 2216
Schenectady, NY 12301-2216

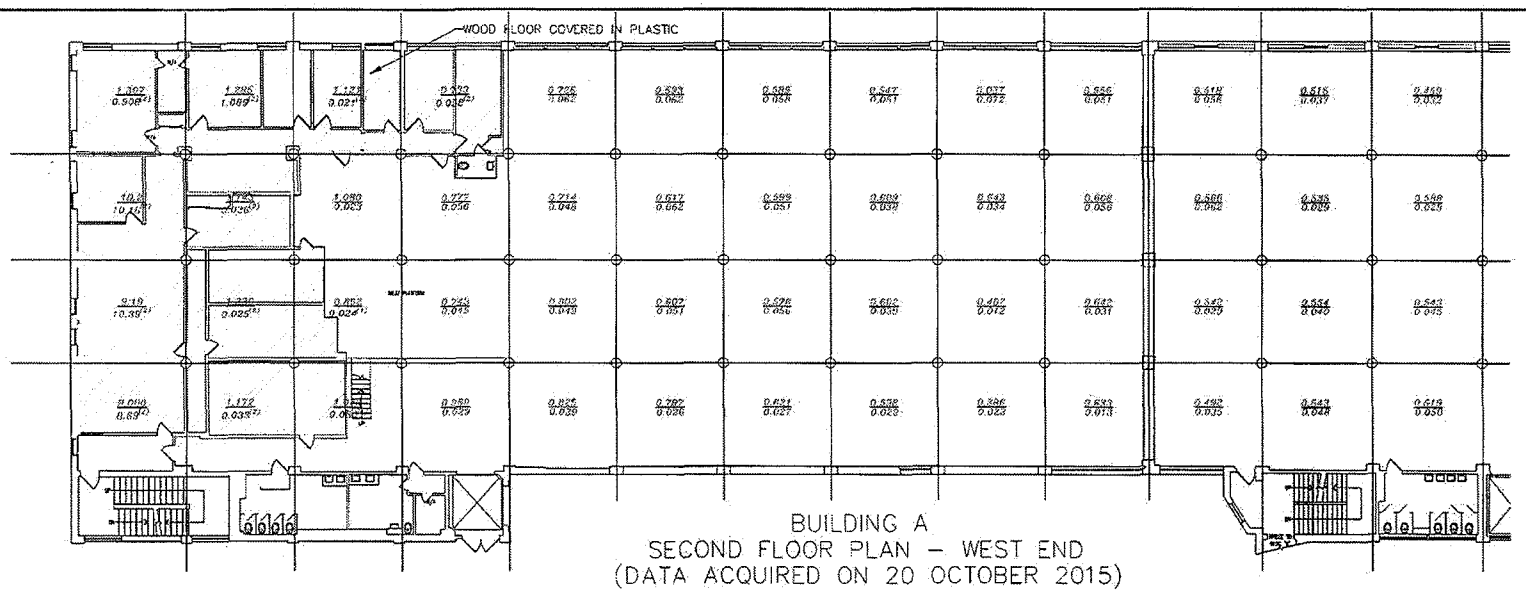
Exhibit A



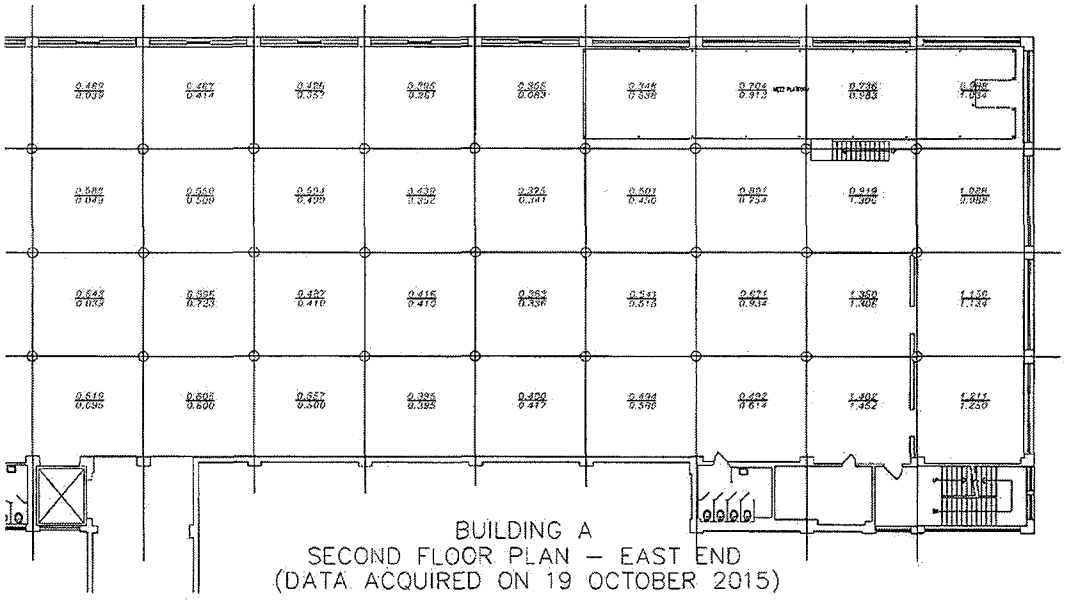
RCRA Notice Letter
Exhibit A

Exhibit B


WOOD FLOOR COVERED IN PLASTIC
INACCESSIBLE
BUILDING A
FIRST FLOOR PLAN
WEST END
WOOD FLOOR COVERED IN PLASTIC
BUILDING A
FIRST FLOOR PLAN
EAST END
LEGEND
Inaccessible Area - Wood Covered In Plastic
Mercury Field Measurement (ug/m³)
0.843 Ambient (5 feet above floor)
0.908 Floor
[1] FLOOR LEVEL READING MEASURED AT PLASTIC/CONCRETE INTERFACE
[2] FLOOR LEVEL READING MEASURED ON TOP OF PLASTIC
NOTES:
1. FIELD DATA OBTAINED USING OHIO LUMEX RA-915M MERCURY VAPOR ANALYZER.
2. LEAD ABATEMENT POWER WASHING WAS ON-GOING ON THE THIRD FLOOR DURING THE FIELD MEASUREMENT ACQUISITION.
LANGAN
Project
Proposed Lamp Works
400 South 5th street
Block# 156 Lot 1
Harrison
NEW JERSEY
Drawing Title
MERCURY VAPOR FIELD SCREENING RESULTS (ug/m³) - BUILDING A - FLOOR 1
19 OCTOBER 2015
Project No.
100484301
Drawing No.
1
Date
10/20/2015
Scale
AS SHOWN
Drawn By
AR
Checked By
Submission Date
Sheet of 08
SCALE IN FEET



BUILDING A
SECOND FLOOR PLAN – WEST END
(DATA ACQUIRED ON 20 OCTOBER 2015)



BUILDING A
SECOND FLOOR PLAN – EAST END
(DATA ACQUIRED ON 19 OCTOBER 2015)

LEGEND

Inaccessible Area - Wood Covered in Plastic

Mercury Field Measurement (ug/m³)

0.843 Ambient (5 feet above floor)

0.908 Floor

[1] FLOOR LEVEL READING MEASURED AT PLASTIC/CONCRETE INTERFACE

[2] FLOOR LEVEL READING MEASURED ON TOP OF PLASTIC

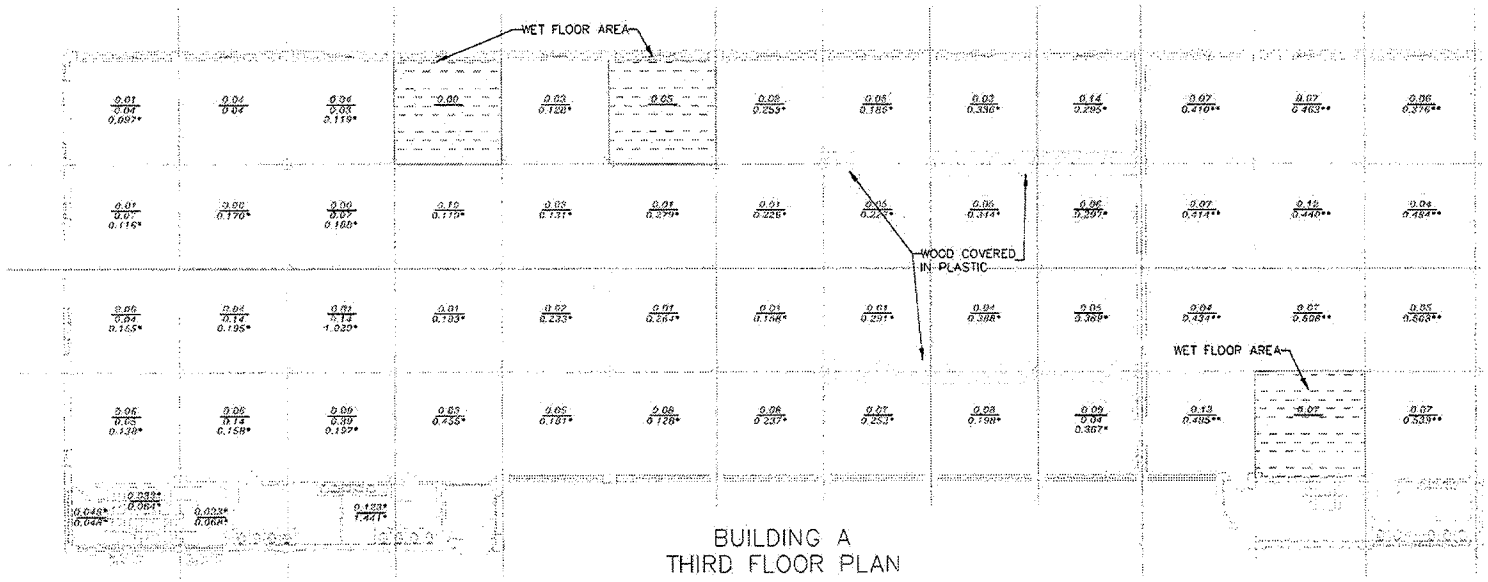
NOTES:
1. FIELD DATA OBTAINED USING OHIO LUMEX RA-915M MERCURY VAPOR ANALYZER.
2. SAMPLES COLLECTED WITH WINDOWS OPEN.
3. WEST END SAMPLES WERE ACQUIRED ON 20 OCTOBER 2015 AND EAST END SAMPLES WERE ACQUIRED ON 19 OCTOBER 2015.
4. LEAD ABATEMENT POWER WASHING WAS ON-GOING ON THE THIRD FLOOR DURING THE FIELD MEASUREMENT ACQUISITION.

LANGAN

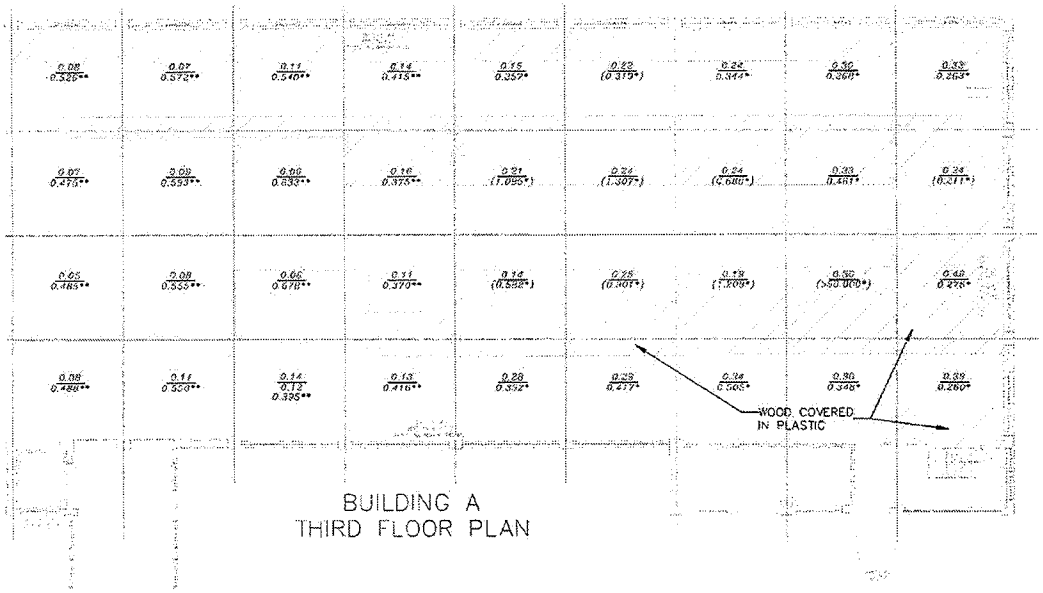
Project
Proposed Lamp Works
400 South 5th street
Block#: 156 Lot 1
Harrison NEW JERSEY

Drawing Title
MERCURY VAPOR FIELD SCREENING RESULTS (ug/m³) - BUILDING A - FLOOR 2 19 & 20 OCTOBER 2015

Project No. 100484301	Drawing No. 2
Date 10/26/2015	
Scale AS SHOWN	
Drawn By AR / Checked By --	
Submission Date -	Sheet of 08



BUILDING A
THIRD FLOOR PLAN



BUILDING A
THIRD FLOOR PLAN

LEGEND

Wood Covered in Plastic

Inaccessible Area - Wet Floor Area

Mercury Field Measurement (ug/m³)

0.843 Ambient (5 feet above floor)

0.908 Floor

NOTES:
1. FIELD MEASUREMENTS SHOWN WITH NO ASTERISK WERE OBTAINED 16 OCTOBER 2015 USING JEROME 1505 MERCURY VAPOR ANALYZER.
2. * FIELD MEASUREMENTS SHOWN WITH ONE ASTERISK WERE OBTAINED 20 OCTOBER 2015 USING OHIO LUMEX RA-915M MERCURY VAPOR ANALYZER.
3. ** FIELD MEASUREMENTS SHOWN WITH TWO ASTERISKS WERE OBTAINED 21 OCTOBER 2015 USING OHIO LUMEX RA-915M MERCURY VAPOR ANALYZER.
4. FIELD MEASUREMENTS SHOWN IN PARENTHESES WERE TAKEN UNDER PLASTIC COVERING.
5. FIELD MEASUREMENTS COLLECTED 20 & 21 OCTOBER 2015 WITH WINDOWS OPEN.
6. AMBIENT SAMPLES WERE COLLECTED ON 16 OCTOBER 2015 PRE LEAD ABATEMENT POWER WASHING ACTIVITIES, FLOOR RESIDENCE WERE COLLECTED ON 20 OCTOBER 2015 DURING POWER WASHING ACTIVITIES AND 21 OCTOBER 2015 AFTER THE COMPLETION OF THE POWER WASHING ACTIVITIES.

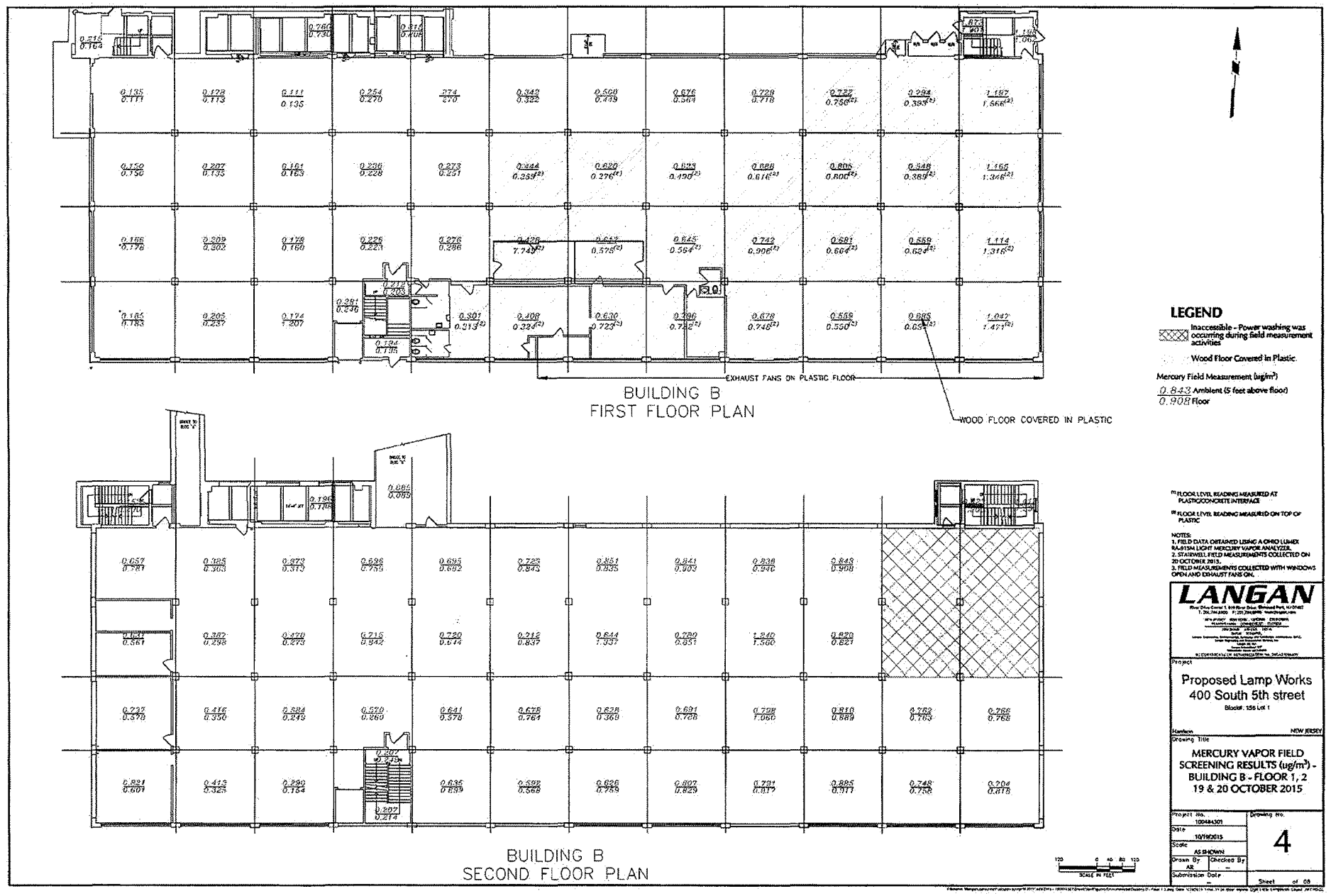
SCALE IN FEET

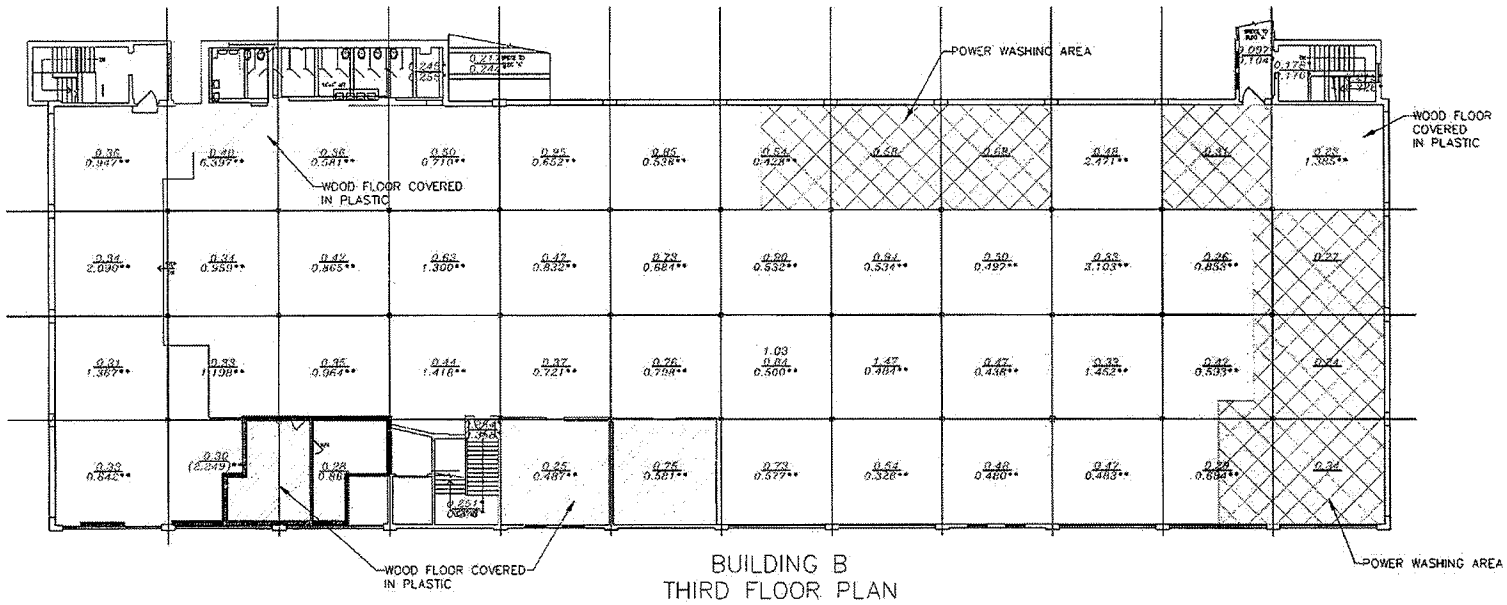
LANGAN

Project
Proposed Lamp Works
400 South 5th street
Block: 156 Lot 1
Harrison NEW JERSEY

Drawing title
MERCURY VAPOR FIELD SCREENING RESULTS (ug/m³) - BUILDING A - FLOOR 3
16, 20 & 21 OCTOBER 2015

Project No. 100484301	Drawing No. 3
Date 10/27/2015	
Scale AS SHOWN	
Drawn By AR	Checked By –
Submission Date –	Sheet of 08





BUILDING B
THIRD FLOOR PLAN

LEGEND

Inaccessible - Power washing was occurring during field measurement activities

Wood Floor Covered in Plastic

Mercury Field Measurement (µg/m³)

0.843 Ambient (5 feet above floor)

0.908 Floor

[a] FLOOR LEVEL READING MEASURED AT PLASTIC/CONCRETE INTERFACE

[b] FLOOR LEVEL READING MEASURED ON TOP OF PLASTIC

NOTES:

1. AMBIENT FIELD MEASUREMENTS WITH NO ASTERISK WERE OBTAINED 16 OCTOBER 2015 PRE LEAD ABATEMENT POWER WASHING ACTIVITIES USING JEROME 431X MERCURY VAPOR ANALYZER.
2. * STAIRWELL FIELD MEASUREMENTS WITH AN ASTERISK WERE OBTAINED ON 20 OCTOBER 2015 DURING LEAD ABATEMENT POWER WASHING ACTIVITIES ON THE SECOND AND THIRD FLOOR USING OHIO LUMEX RA-915M LIGHT MERCURY VAPOR ANALYZER.
3. ** FLOOR FIELD MEASUREMENTS WITH 2 ASTERISKS WERE OBTAINED 21 OCTOBER 2015 DURING LEAD ABATEMENT POWER WASHING ACTIVITIES USING OHIO LUMEX RA-915M LIGHT MERCURY VAPOR ANALYZER.
4. FIELD MEASUREMENTS SHOWN IN PARENTHESES WERE TAKEN UNDER PLASTIC COVERING.
5. SOME FLOOR LEVEL READINGS WERE NOT COLLECTED DUE TO ON-GOING POWER WASING ACTIVITIES.

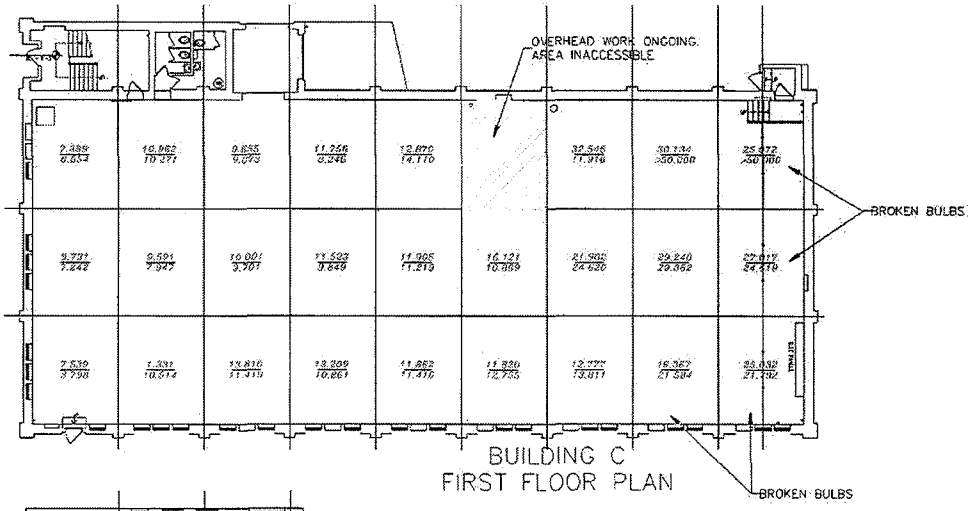
SCALE IN FEET: 120 0 40 80 120

LANGAN

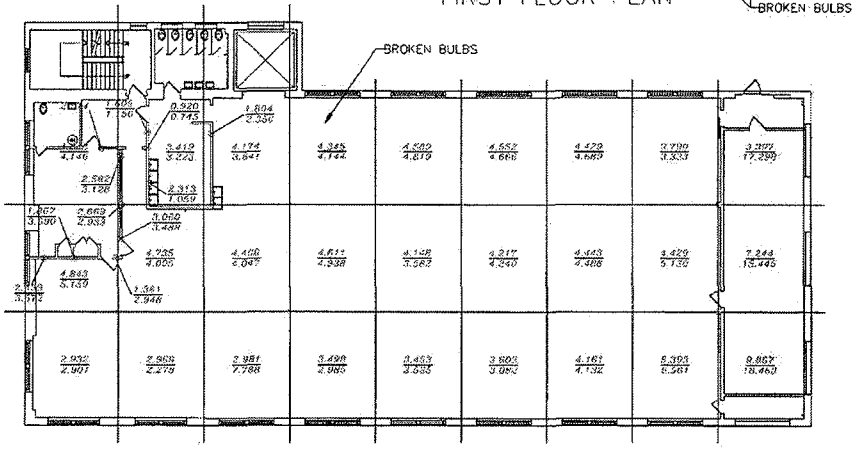
Project: Proposed Lamp Works
400 South 5th street
Block: 156 Lot 1
Harrison NEW JERSEY

Drawing Title: MERCURY VAPOR FIELD SCREENING RESULTS (µg/m³) - BUILDING B - FLOOR 3
16, 20, & 21 OCTOBER 2015

Project No. 100484301	Drawing No. 5
Date 10/27/2015	
Scale AS SHOWN	
Drawn By AR	Checked By –
Submission Date –	Sheet 01 of 08



BUILDING C
FIRST FLOOR PLAN



BUILDING C
SECOND FLOOR PLAN

LEGEND

Inaccessible Area

Sheet Rock Mercury Field Measurement Location (Readings acquired from inside the wall through pilot hole)

Mercury Field Measurement (ug/m³)

0.843 Ambient (5 feet above floor)
0.908 Floor

NOTES:
1. FIELD DATA OBTAINED USING OHIO LUMEX RA-915M MERCURY VAPOR ANALYZER.
2. SELECT DEMOLITION WAS BEING CONDUCTED ON FLOOR 1 DURING THE FIELD MEASUREMENT ACQUISITION.

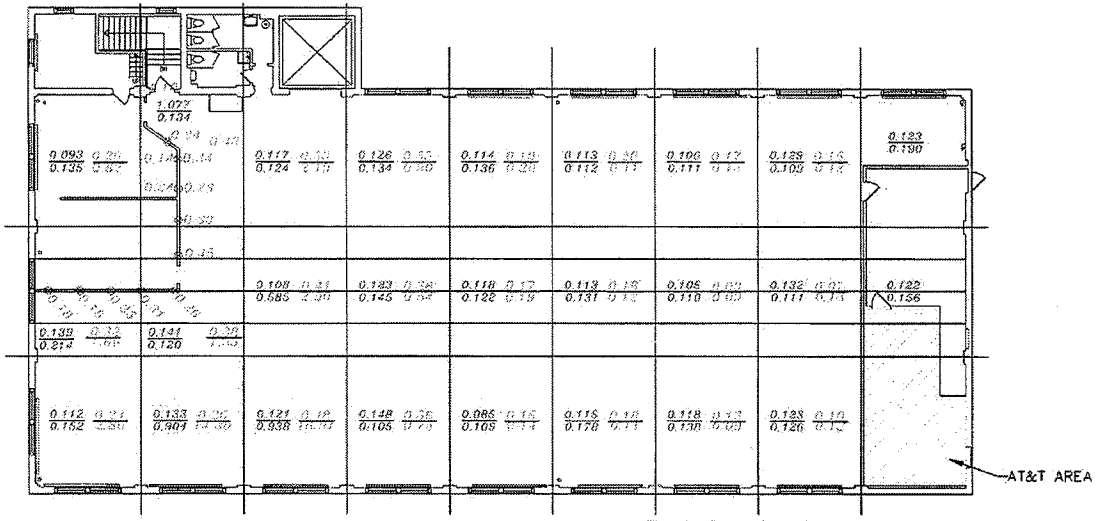
SCALE IN FEET

LANGAN

Project
Proposed Lamp Works
400 South 5th street
Block: 156 Lot 1
Harrison NEW JERSEY

Drawing Title
MERCURY VAPOR FIELD SCREENING RESULTS (ug/m³) - BUILDING C - FLOOR 1, 2
20 OCTOBER 2015

Project No. 100484301	Drawing No. 6
Date 11/05/2015	
Scale AS SHOWN	
Drawn By AR	Checked By --
Submission Date --	Sheet of 08



BUILDING C
THIRD FLOOR PLAN

LEGEND

Inaccessible Area

Sheet Rock Mercury Field Measurement Location (Readings acquired from inside the wall through pilot hole)

Mercury Field Measurement (ug/m³)

0.843 / 0.908 Ambient (5 feet above floor) / Floor

20 OCTOBER 2015 — 16 OCTOBER 2015

NOTES:
1. FIELD DATA OBTAINED USING OHIO LUMEX RA-915 MERCURY VAPOR ANALYZER.
2. SAMPLES COLLECTED WITH ALL WINDOWS OPEN.
3. SELECT DEMOLITION WAS OCCURING ON THE FIRST FLOOR DURING THE FIELD MEASUREMENT ACQUISITION ON 20 OCTOBER 2015.

SCALE IN FEET

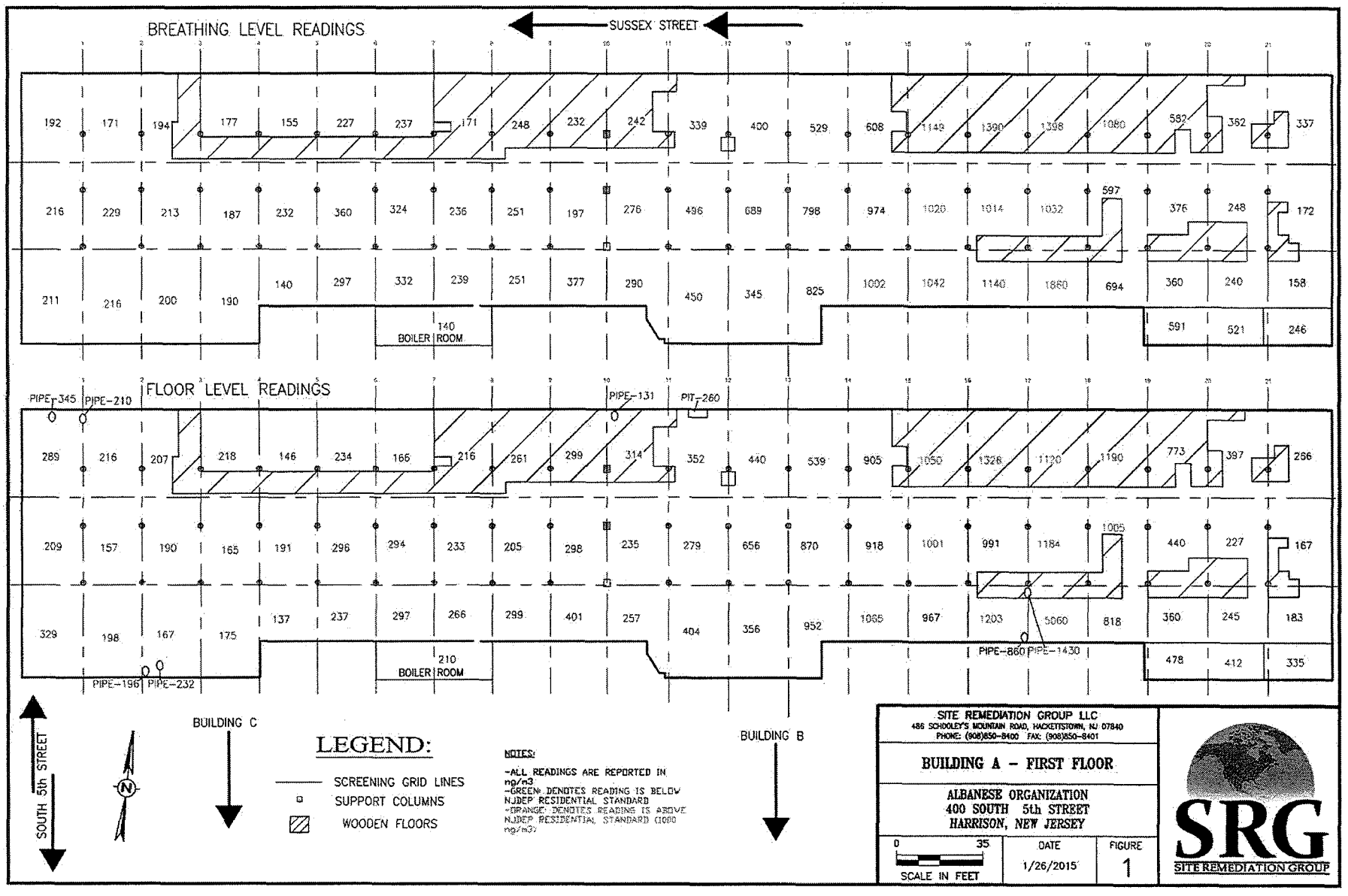
LANGAN

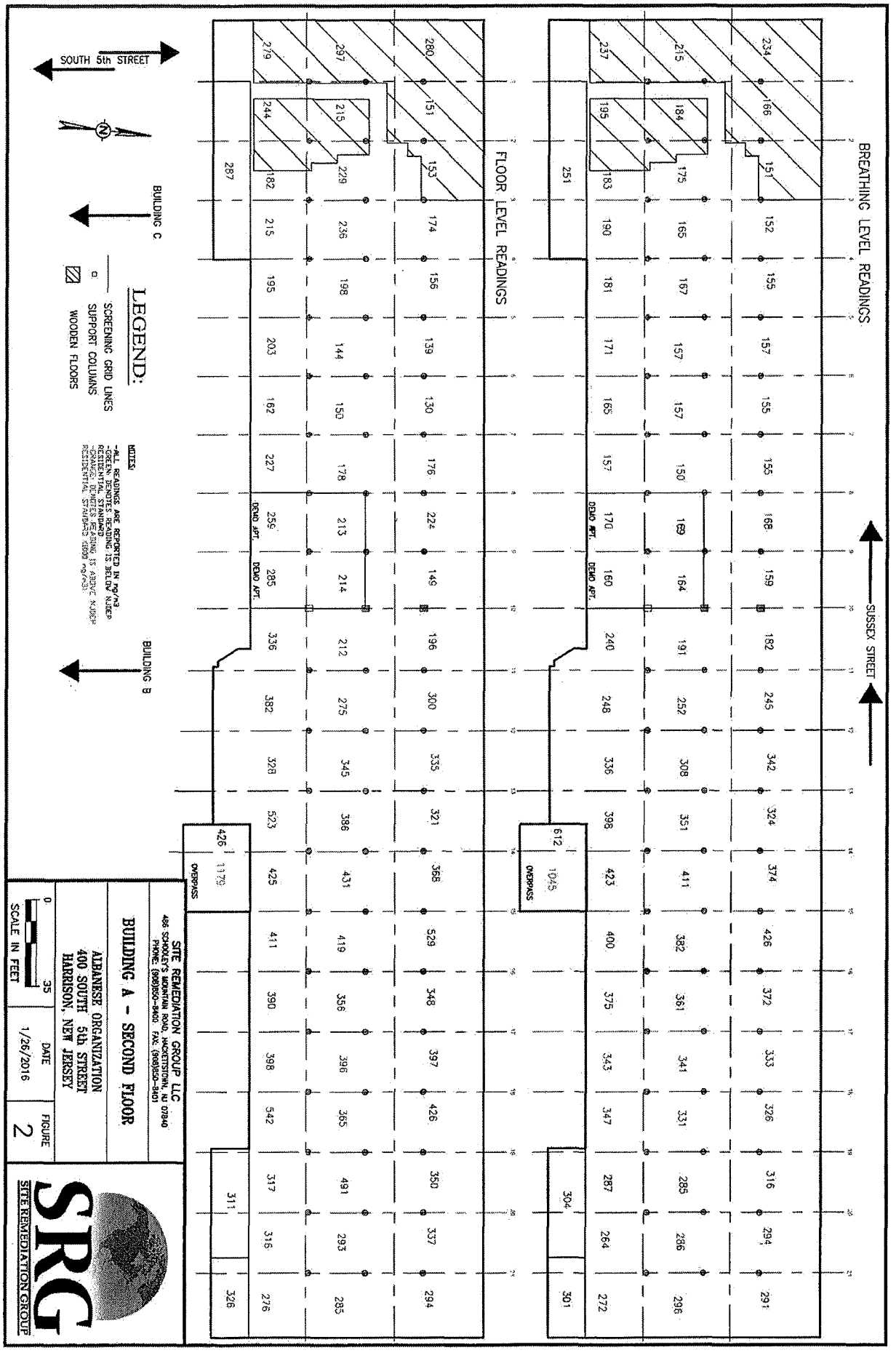
Project
Proposed Lamp Works
400 South 5th street
Block: 158 Lot 1
Harrison NEW JERSEY

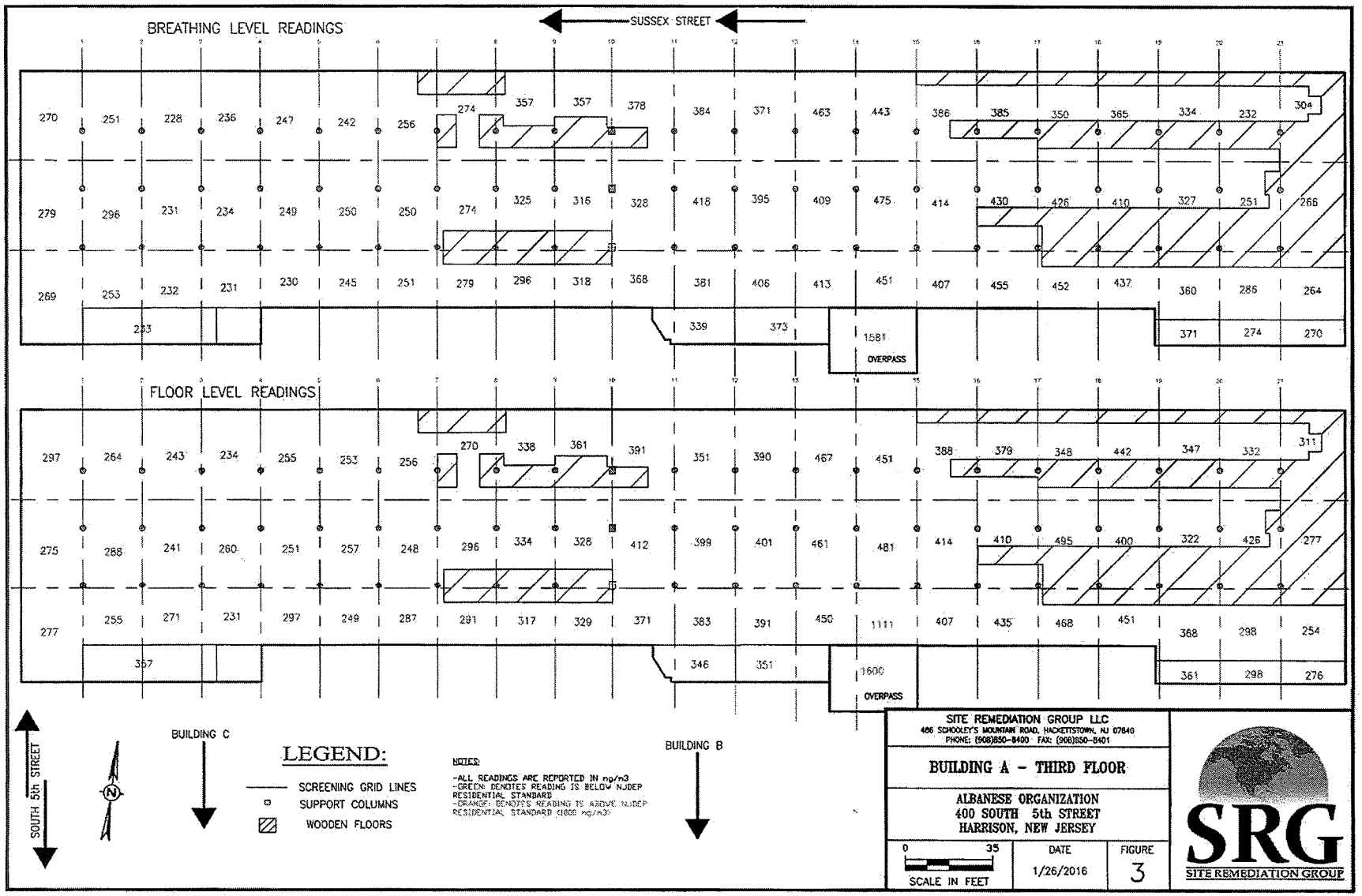
Drawing Title
MERCURY VAPOR FIELD SCREENING RESULTS (ug/m³) - BUILDING C - FLOOR 3
20 OCTOBER 2015

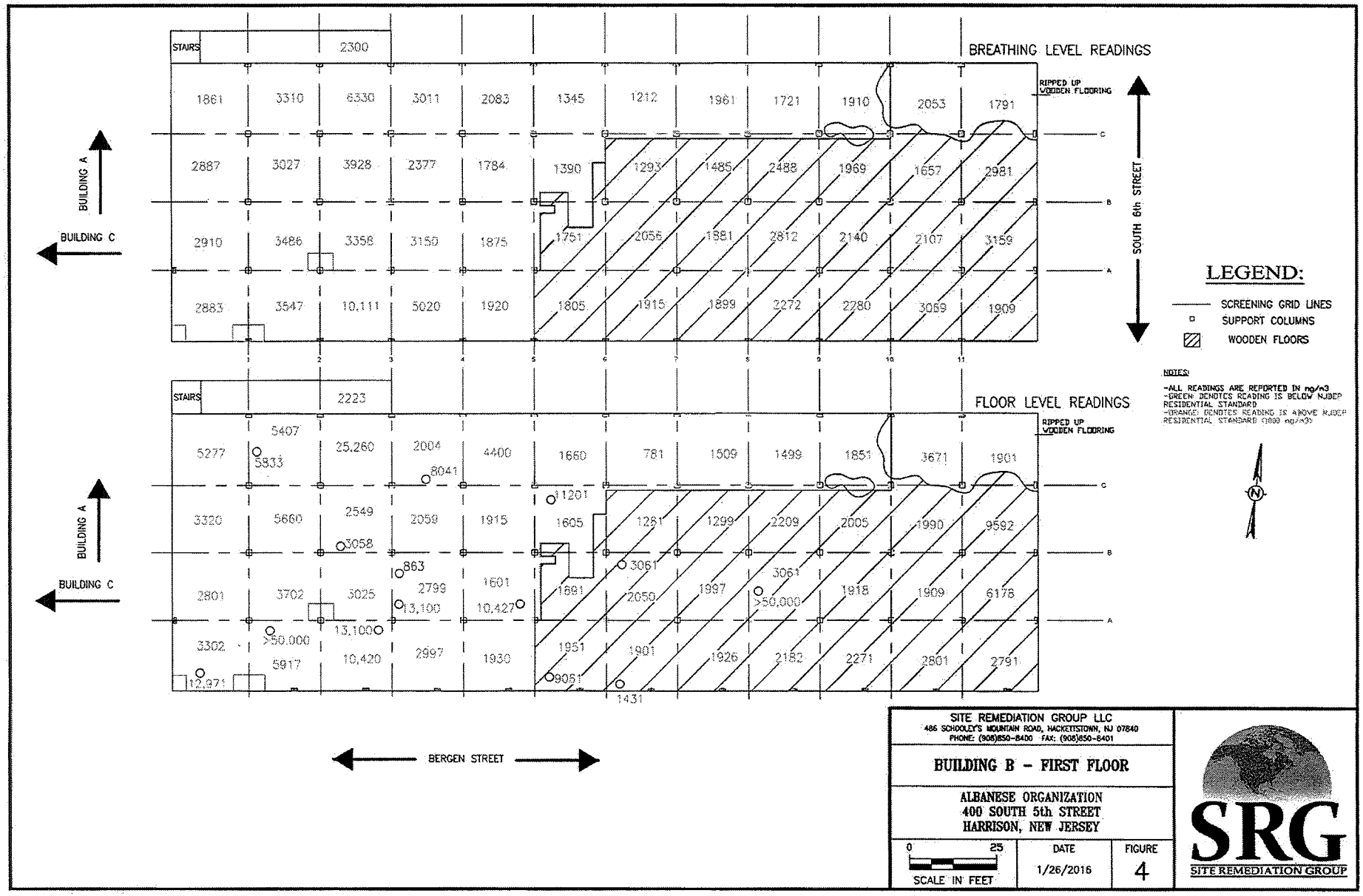
Project No. 100484301	Drawing No. 7
Date 10/27/2015	
Scale AS SHOWN	
Drawn By AR	Checked By
Submission Date	Sheet of 08

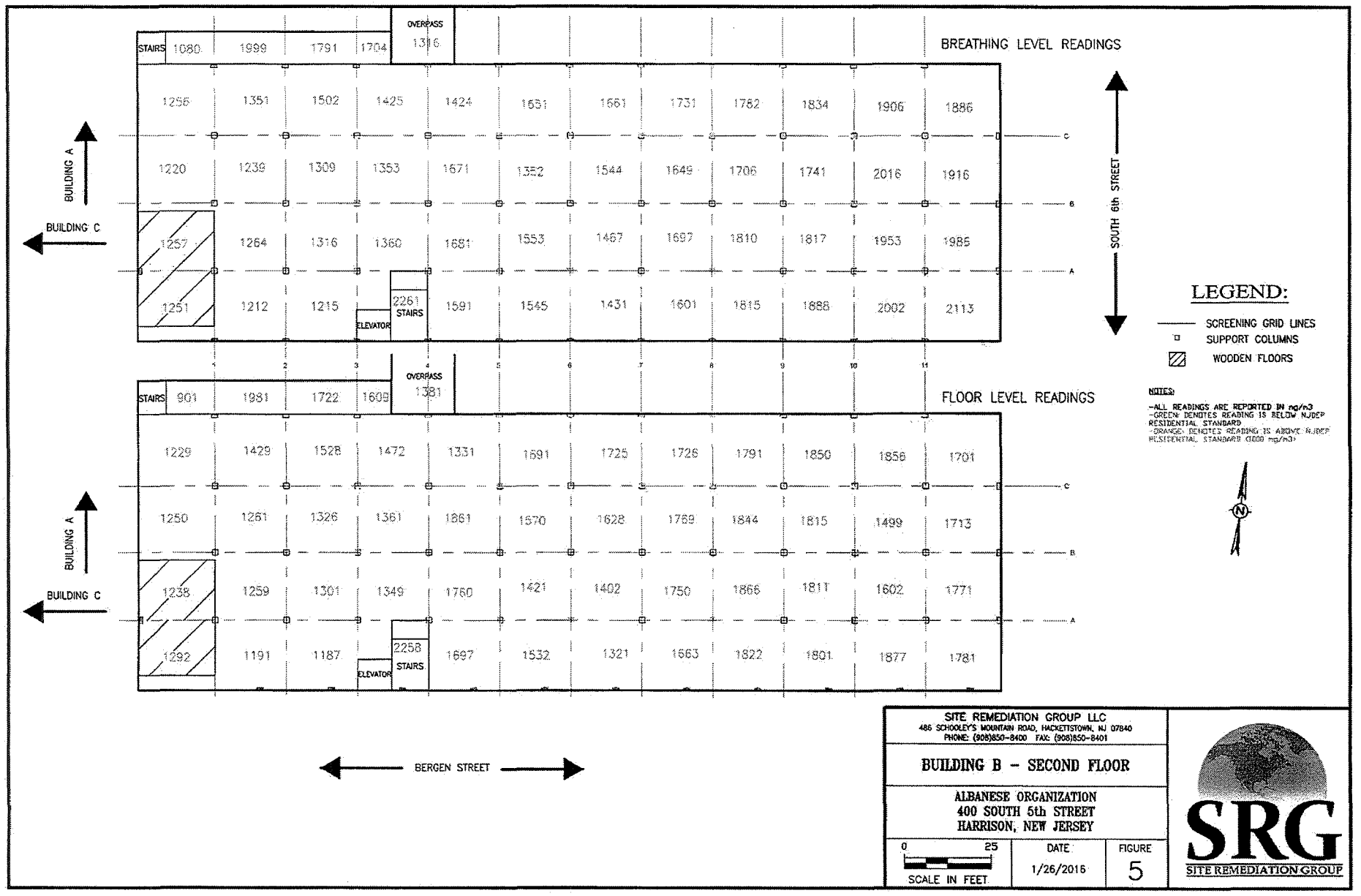
Exhibit C

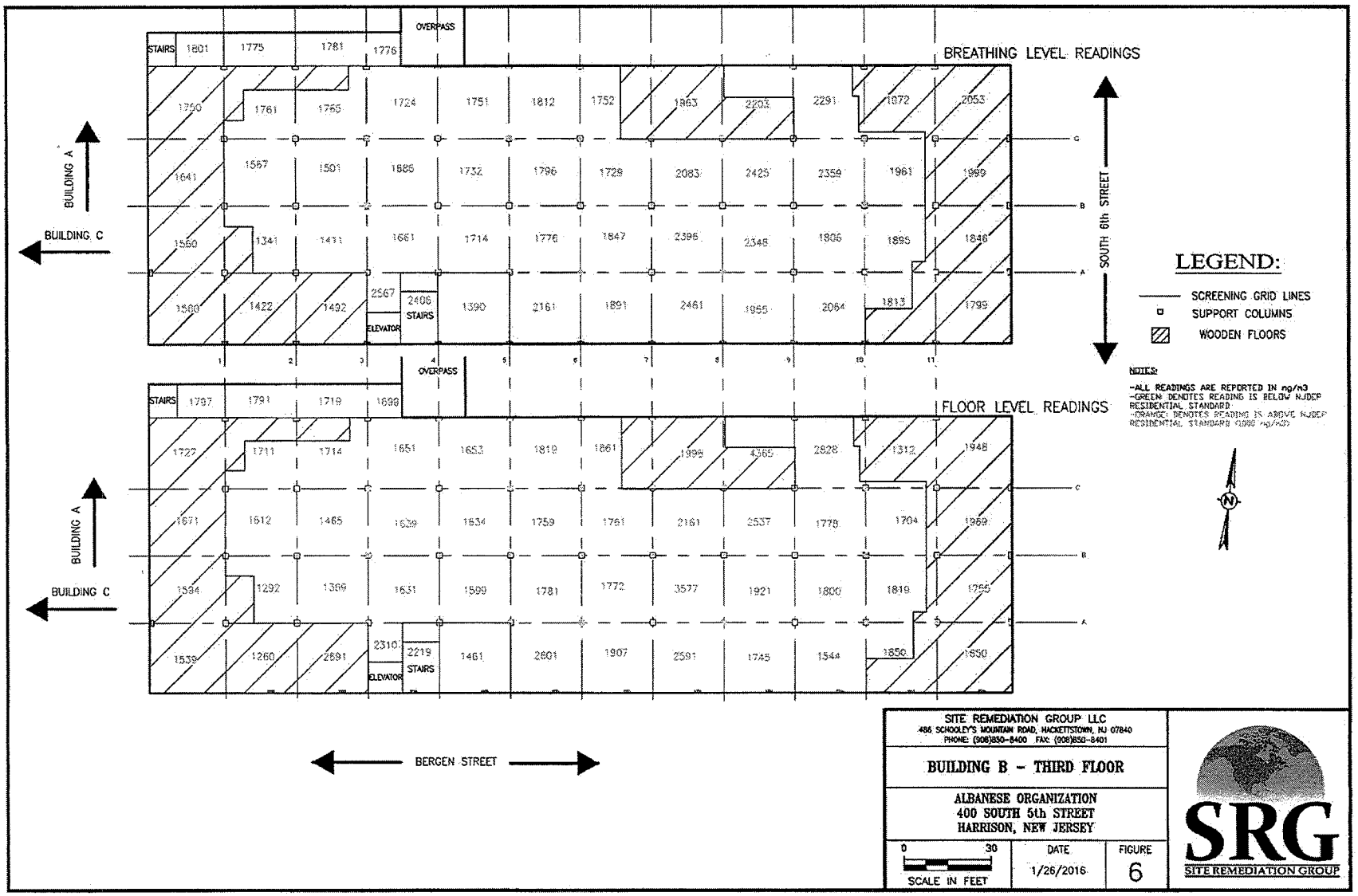

BREATHING LEVEL READINGS
SUSSEX STREET
192 171 194 177 155 227 237 171 248 232 242 339 400 529 608 1140 1390 1398 1080 582 362 337
216 229 213 187 232 360 324 236 251 197 276 486 689 798 974 1020 1014 1032 597 376 248 172
211 216 200 190 140 297 332 239 251 377 290 450 345 825 1002 1042 1140 1860 694 360 240 158
140 BOILER ROOM
591 521 246
FLOOR LEVEL READINGS
PIPE-345 PIPE-210 PIPE-131 PIT-260
289 216 207 218 146 234 166 216 261 299 314 352 440 539 905 1050 1328 1120 1190 773 397 266
209 157 190 165 191 296 294 233 205 298 235 279 656 870 918 1001 991 1184 1005 440 227 167
329 198 167 175 137 237 297 266 299 401 257 404 356 952 1065 967 1203 5060 818 360 245 183
210 BOILER ROOM
PIPE-860 PIPE-1430
478 412 335
PIPE-196 PIPE-232
SOUTH 5th STREET
BUILDING C
BUILDING B
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
WOODEN FLOORS
NOTES:
-ALL READINGS ARE REPORTED IN ng/m3
-GREEN DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
-ORANGE DENOTES READING IS ABOVE NJDEP RESIDENTIAL STANDARD (1000 ng/m3)
SITE REMEDIATION GROUP LLC
486 SCHOOLEY'S MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING A - FIRST FLOOR
ALBANESE ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
0 35
SCALE IN FEET
DATE
1/26/2015
FIGURE
1
SRG
SITE REMEDIATION GROUP

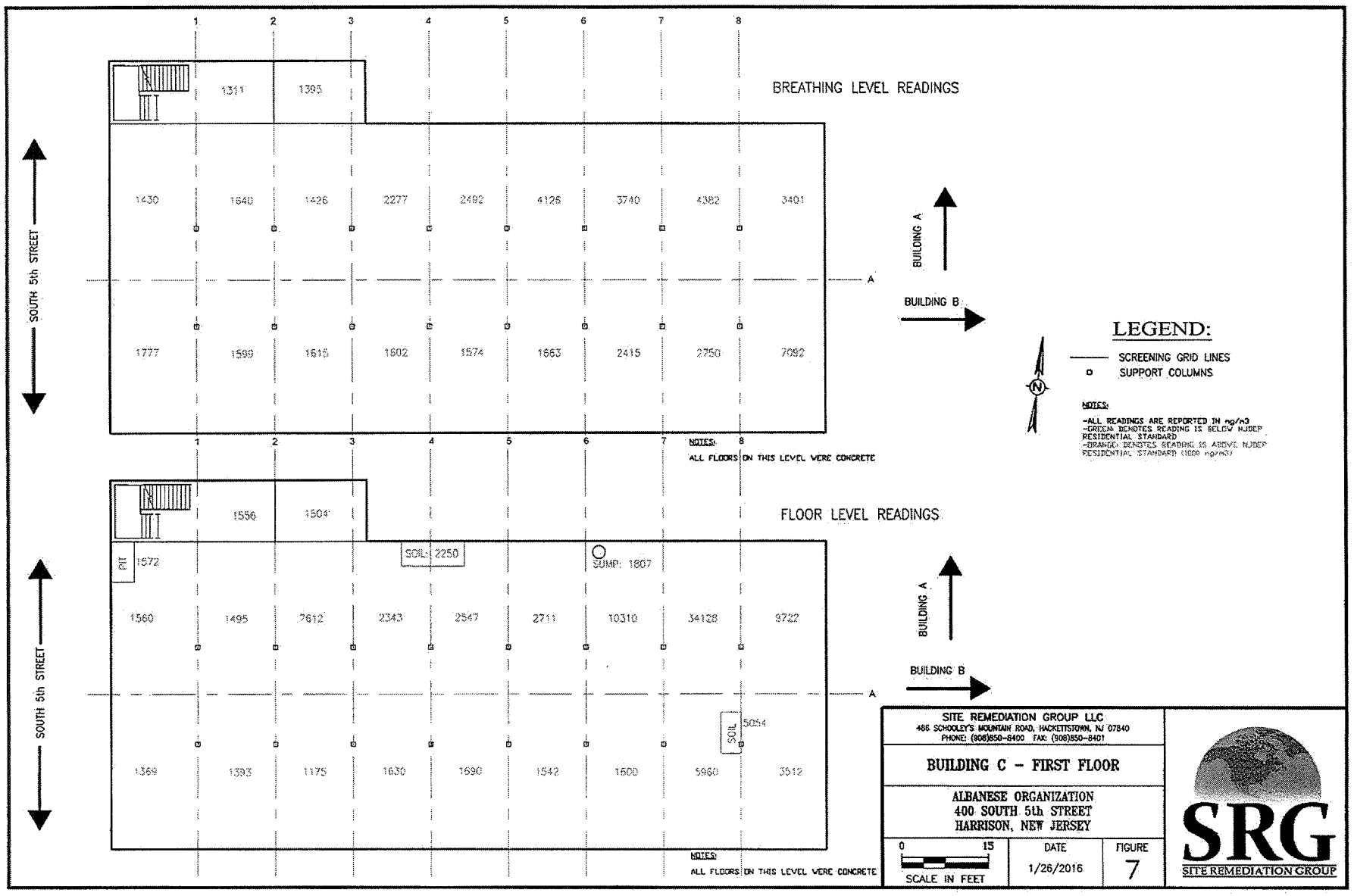

BREATHING LEVEL READINGS
FLOOR LEVEL READINGS
SUSSEX STREET
SOUTH 5th STREET
BUILDING C
BUILDING B
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
WOODEN FLOORS
NOTES:
-ALL READINGS ARE REPORTED IN PPB/M3
-GREEN= DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
-ORANGE= DENOTES READING IS ABOVE NJDEP RESIDENTIAL STANDARD (1000 PPB/M3)
DEMO APT.
OVERPASS
SITE REMEDIATION GROUP, LLC
486 SCHOLEY'S MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING A - SECOND FLOOR
ALBANESE ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
SCALE IN FEET
0
35
DATE
1/26/2016
FIGURE
2
SRG
SITE REMEDIATION GROUP

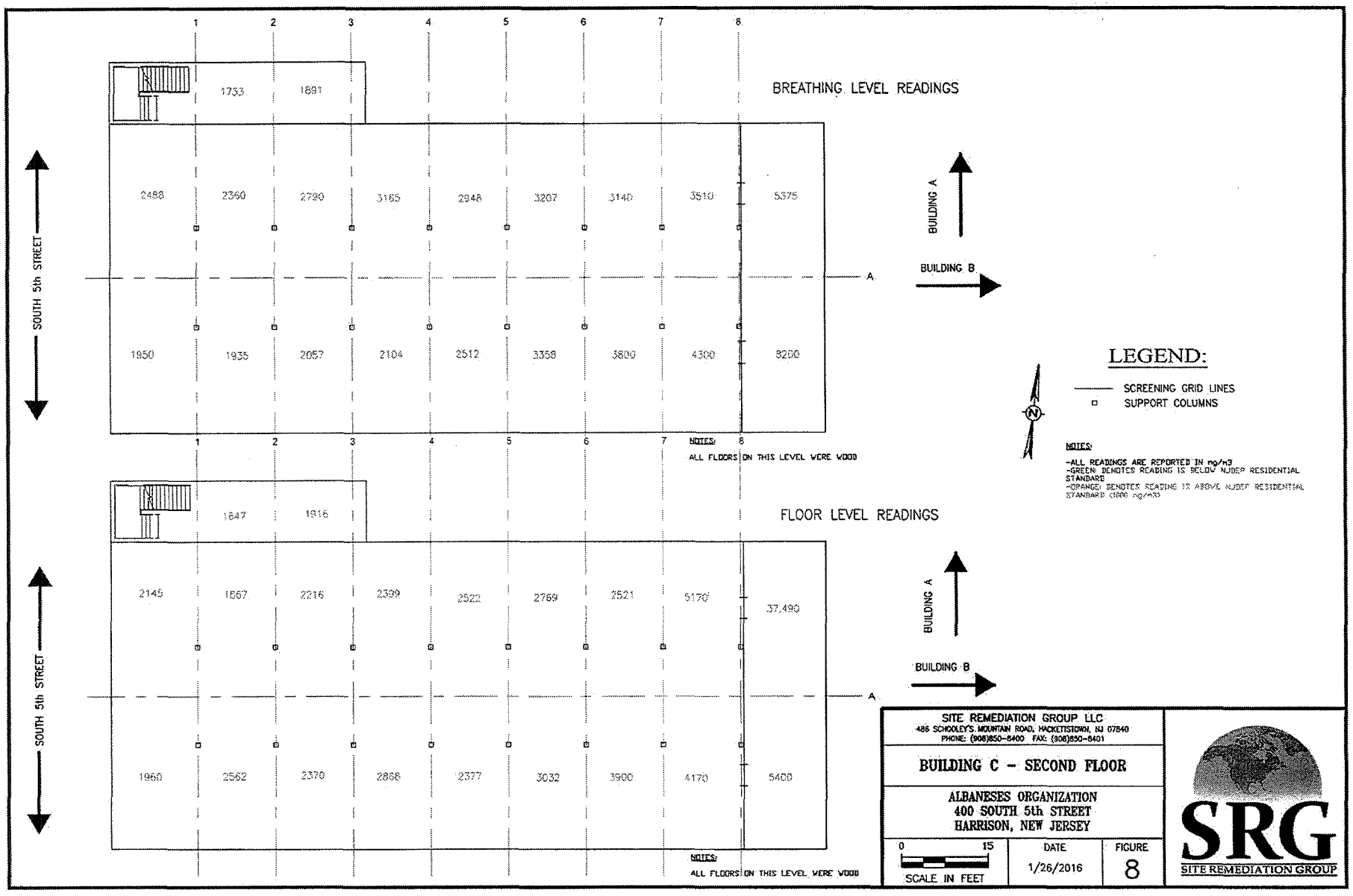

BREATHING LEVEL READINGS
SUSSEX STREET
270 251 228 236 247 242 256 274 357 357 378 384 371 463 443 386 385 350 365 334 232 304
279 296 231 234 249 250 250 274 325 316 328 418 395 409 475 414 430 426 410 327 251 266
269 253 232 231 230 245 251 279 296 318 368 381 406 413 451 407 455 452 437 360 285 264
283 339 373 1581 OVERPASS 371 274 270
FLOOR LEVEL READINGS
297 264 243 234 255 253 256 270 338 361 391 351 390 467 451 388 379 348 442 347 332 311
275 288 241 260 251 257 248 296 334 328 412 399 401 461 481 414 410 495 400 322 426 277
277 255 271 231 297 249 287 291 317 329 371 383 391 450 1111 407 435 468 451 368 298 254
367 346 351 1600 OVERPASS 361 298 276
SOUTH 5th STREET
BUILDING C
BUILDING B
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
WOODEN FLOORS
NOTES:
-ALL READINGS ARE REPORTED IN ng/m3
-GREEN DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
-ORANGE DENOTES READING IS ABOVE NJDEP RESIDENTIAL STANDARD (1000 ng/m3)
SITE REMEDIATION GROUP LLC
486 SCHOOLEY'S MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING A - THIRD FLOOR
ALBANESE ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
0 35
SCALE IN FEET
DATE
1/26/2016
FIGURE
3
SRG
SITE REMEDIATION GROUP


BREATHING LEVEL READINGS
STAIRS
2300
1861
3310
6330
3011
2083
1345
1212
1961
1721
1910
2053
1791
2887
3027
3928
2377
1784
1390
1293
1485
2488
1969
1657
2981
2910
3486
3358
3150
1875
1751
2056
1881
2812
2140
2107
3159
2883
3547
10,111
5020
1920
1805
1915
1899
2272
2280
3069
1909
RIPPED UP WOODEN FLOORING
SOUTH 6th STREET
BUILDING A
BUILDING C
FLOOR LEVEL READINGS
STAIRS
2223
5277
5407
5833
25,260
2004
8041
4400
1660
781
1509
1499
1851
3671
1901
11201
3320
5660
2549
3058
2059
1915
1605
1281
1299
2209
2005
1990
9592
3061
863
2799
13,100
1601
10,427
1691
2059
1997
3061
>50,000
1918
1909
6178
2801
3702
3025
13,100
>50,000
3302
5917
10,420
2997
1930
1951
1901
1926
2182
2271
2801
2791
12,971
9051
1431
RIPPED UP WOODEN FLOORING
BUILDING A
BUILDING C
BERGEN STREET
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
WOODEN FLOORS
NOTES:
-ALL READINGS ARE REPORTED IN ng/m3
-GREEN: DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
-ORANGE: DENOTES READING IS ABOVE NJDEP RESIDENTIAL STANDARD (1000 ng/m3)
N
SITE REMEDIATION GROUP LLC
486 SCHOOLEY'S MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING B - FIRST FLOOR
ALBANESE ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
0 25
SCALE IN FEET
DATE
1/26/2016
FIGURE
4
SRG
SITE REMEDIATION GROUP


BREATHING LEVEL READINGS
STAIRS 1080 1999 1791 1704
OVERPASS 1316
1256 1351 1502 1425 1424 1651 1661 1731 1782 1834 1906 1886
1220 1239 1309 1353 1671 1352 1544 1649 1706 1741 2016 1916
1257 1264 1316 1360 1681 1553 1467 1697 1810 1817 1953 1985
1251 1212 1215 ELEVATOR 2261 STAIRS 1591 1545 1431 1601 1815 1888 2002 2113
SOUTH 6th STREET
BUILDING A
BUILDING C
FLOOR LEVEL READINGS
STAIRS 901 1981 1722 1609
OVERPASS 1381
1229 1429 1528 1472 1331 1691 1725 1726 1791 1850 1856 1701
1250 1261 1326 1361 1861 1670 1628 1769 1844 1815 1499 1713
1238 1259 1301 1349 1760 1421 1402 1750 1866 1811 1602 1771
1292 1191 1187 ELEVATOR 2258 STAIRS 1697 1532 1321 1663 1822 1801 1877 1781
BERGEN STREET
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
WOODEN FLOORS
NOTES:
-ALL READINGS ARE REPORTED IN ng/m3
-GREEN DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
-ORANGE DENOTES READING IS ABOVE NJDEP RESIDENTIAL STANDARD (1000 ng/m3)
SITE REMEDIATION GROUP LLC
486 SCHOOLEY'S MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING B – SECOND FLOOR
ALBANESE ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
0 25
SCALE IN FEET
DATE
1/26/2016
FIGURE
5
SRG
SITE REMEDIATION GROUP


BREATHING LEVEL READINGS
FLOOR LEVEL READINGS
OVERPASS
STAIRS
ELEVATOR
BUILDING A
BUILDING C
SOUTH 6th STREET
BERGEN STREET
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
WOODEN FLOORS
NOTES:
-ALL READINGS ARE REPORTED IN ng/m3
-GREEN DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
-ORANGE DENOTES READING IS ABOVE NJDEP RESIDENTIAL STANDARD (1000 ng/m3)
SITE REMEDIATION GROUP LLC
486 SCHOOLEY'S MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING B - THIRD FLOOR
ALBANESE ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
0 30
SCALE IN FEET
DATE
1/26/2016
FIGURE
6
SRG
SITE REMEDIATION GROUP


BREATHING LEVEL READINGS
1311
1395
1430
1640
1426
2277
2492
4125
3740
4382
3401
1777
1599
1615
1602
1574
1663
2415
2750
7092
NOTES:
ALL FLOORS ON THIS LEVEL WERE CONCRETE
FLOOR LEVEL READINGS
1556
1504
ENT
1572
SOIL: 2250
SUMP: 1807
1560
1495
7612
2343
2547
2711
10310
34128
9722
SOIL
5054
1369
1393
1175
1630
1690
1542
1600
5960
3512
NOTES:
ALL FLOORS ON THIS LEVEL WERE CONCRETE
SOUTH 5th STREET
SOUTH 5th STREET
BUILDING A
BUILDING B
BUILDING A
BUILDING B
A
A
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
NOTES:
-ALL READINGS ARE REPORTED IN ng/m3
-GREEN DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
-ORANGE DENOTES READING IS ABOVE NJDEP RESIDENTIAL STANDARD (1000 ng/m3)
SITE REMEDIATION GROUP LLC
486 SCHOOLEY'S MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING C - FIRST FLOOR
ALBANESE ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
0
15
SCALE IN FEET
DATE
1/26/2016
FIGURE
7
SRG
SITE REMEDIATION GROUP


BREATHING LEVEL READINGS
1733
1891
2488
2360
2790
3165
2948
3207
3140
3510
5375
1950
1935
2057
2104
2512
3358
3800
4300
8200
SOUTH 5th STREET
BUILDING A
BUILDING B
A
NOTES:
ALL FLOORS ON THIS LEVEL WERE WOOD
FLOOR LEVEL READINGS
1647
1916
2145
1887
2216
2399
2522
2769
2521
5170
37,490
1960
2562
2370
2868
2377
3032
3900
4170
5400
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
NOTES:
-ALL READINGS ARE REPORTED IN ng/m3
-GREEN: DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
SITE REMEDIATION GROUP LLC
486 SCHOOLEYS MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING C – SECOND FLOOR
ALBANESES ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
0 15
SCALE IN FEET
DATE
1/26/2016
FIGURE
8
SRG
SITE REMEDIATION GROUP

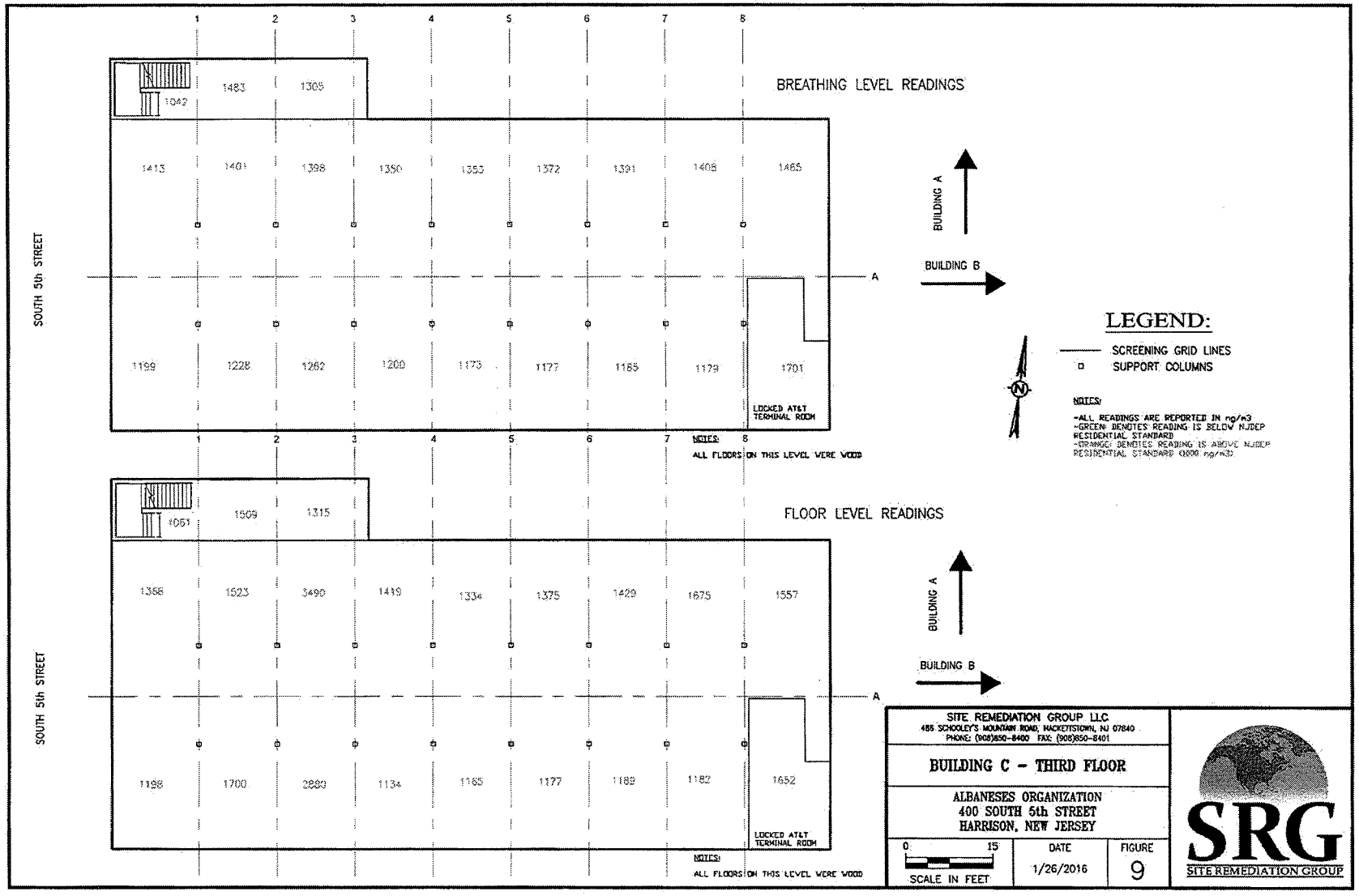

BREATHING LEVEL READINGS
1042
1483
1305
1413
1401
1398
1350
1353
1372
1391
1408
1465
1199
1228
1262
1200
1173
1177
1185
1179
1701
LOCKED AT&T TERMINAL ROOM
NOTES:
ALL FLOORS ON THIS LEVEL WERE WOOD
FLOOR LEVEL READINGS
1061
1509
1315
1388
1523
3490
1419
1334
1375
1429
1675
1557
1198
1700
2880
1134
1165
1177
1189
1182
1652
LOCKED AT&T TERMINAL ROOM
NOTES:
ALL FLOORS ON THIS LEVEL WERE WOOD
SOUTH 5th STREET
SOUTH 5th STREET
BUILDING A
BUILDING B
BUILDING A
BUILDING B
LEGEND:
SCREENING GRID LINES
SUPPORT COLUMNS
NOTES:
-ALL READINGS ARE REPORTED IN ng/m3
-GREEN: DENOTES READING IS BELOW NJDEP RESIDENTIAL STANDARD
-ORANGE: DENOTES READING IS ABOVE NJDEP RESIDENTIAL STANDARD (1000 ng/m3)
SITE REMEDIATION GROUP LLC
485 SCHOOLEY'S MOUNTAIN ROAD, HACKETTSTOWN, NJ 07840
PHONE: (908)850-8400 FAX: (908)850-8401
BUILDING C - THIRD FLOOR
ALBANESES ORGANIZATION
400 SOUTH 5th STREET
HARRISON, NEW JERSEY
0
15
SCALE IN FEET
DATE
1/26/2016
FIGURE
9
SRG
SITE REMEDIATION GROUP

Exhibit D

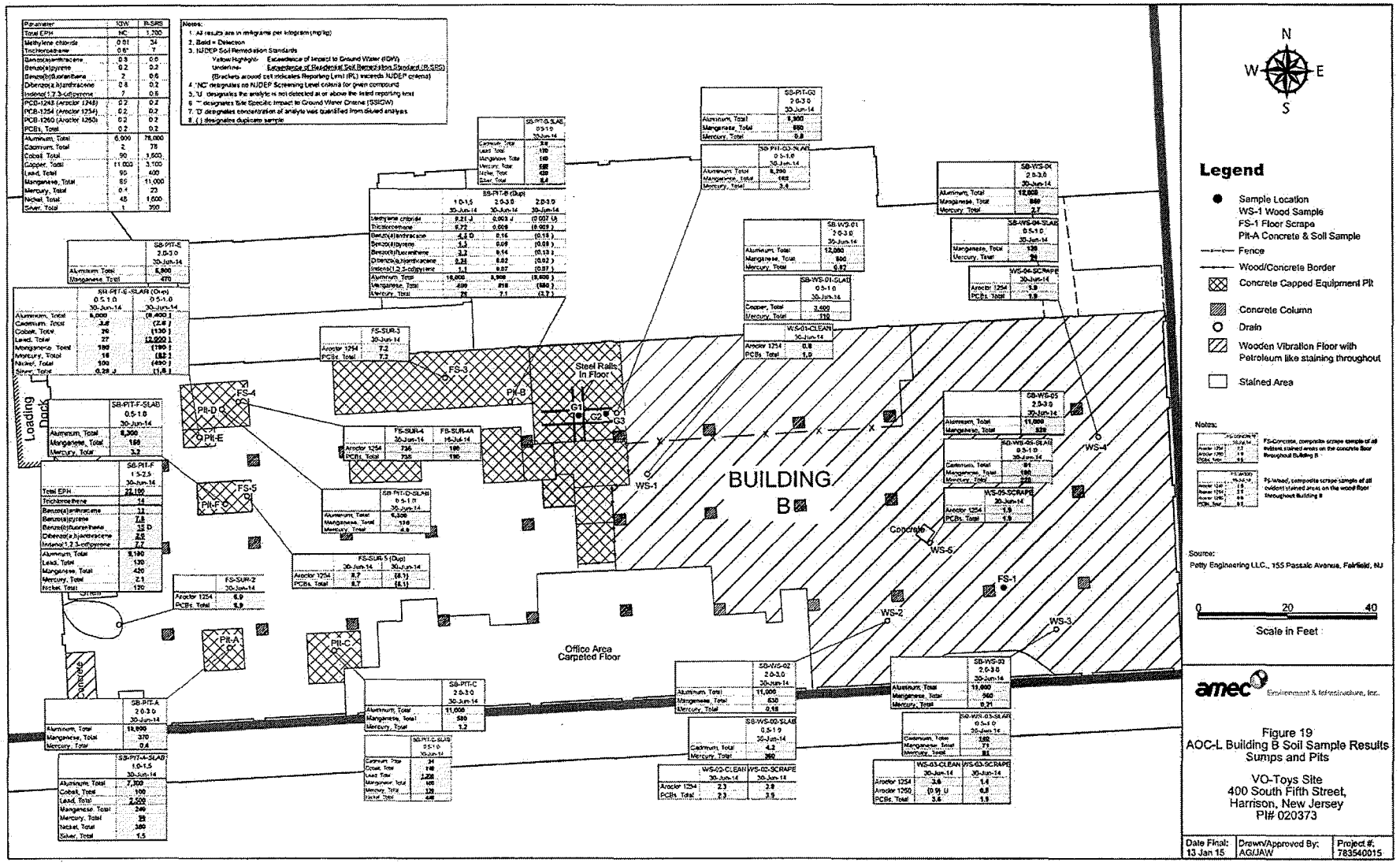

BUILDING B
Steel Rails in Floor
Loading Dock
Concrete
Office Area Carpeted Floor
Concrete
Legend
Sample Location
WS-1 Wood Sample
FS-1 Floor Scrape
Pit-A Concrete & Soil Sample
Fence
Wood/Concrete Border
Concrete Capped Equipment Pit
Concrete Column
Drain
Wooden Vibration Floor with Petroleum like staining throughout
Stained Area
Source:
Petty Engineering LLC., 155 Passaic Avenue, Fairfield, NJ
0
20
40
Scale in Feet
amec
Environment & Infrastructure, Inc.
Figure 19
AOC-L Building B Soil Sample Results
Sumps and Pits
VO-Toys Site
400 South Fifth Street,
Harrison, New Jersey
PI# 020373
Date Final: 13 Jan 15
Drawn/Approved By: AG/JAW
Project #: 783540015

Table 19
AOC L Building B
Pit and Wood Areas Slab Sample Results
VO-Toys Site (PI # 020373)
400 South Fifth Street, Harrison, Hudson County, New Jersey

	Sample Location:		SB-PIT-A-SLAB	SB-PIT-B-SLAB	SB-PIT-C-SLAB	SB-PIT-D-SLAB	SB-PIT-E-SLAB		SB-PIT-F-SLAB	SB-PIT-G3-SLAB	SB-WS-01-SLAB	SB-WS-02-SLAB	SB-WS-03-SLAB	SB-WS-04-SLAB	SB-WS-05-SLAB
	Sample Depth:		1.0-1.5	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0	0.5-1.0
	Sample Date:		30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14
	Lab Sample ID:		L1414459-18	L1414459-20	L1414459-24	L1414459-26	L1414459-28	L1414459-34	L1414459-30	L1414459-32	L1414459-02	L1414459-06	L1414459-10	L1414459-13	L1414459-16
Parameter	IGW	R-SRS													
Total Metals (mg/kg)															
Aluminum, Total	6,000	78,000	7,300	4,800	5,800	6,300	5,000	6,400	6,300	6,200	2,200	430	3,200	4,000	3,600
Antimony, Total	6	31	1.1 J	1.9 J	4.0 U	3.9 U	0.74 J	4.0 U	3.9 U	3.9 U	4.0 U	0.76 J	4.0 U	4.0 U	4.0 U
Arsenic, Total	19	19	7.1	5.3	8.0	3.7	6.4	5.8	2.3	1.5	3.4	2.8	5.2	2.4	4.8
Barium, Total	2,100	16,000	600	64	59	59	76	580	45	38	30	30	340	31	58
Beryllium, Total	0.7	16	0.26 J	0.16 J	0.29 J	0.21 J	0.4	0.26 J	0.21 J	0.2 J	0.09 J	0.38 U	0.24 J	0.13 J	0.21 J
Cadmium, Total	2	78	1.5	2.8	24	0.84	3.8	2.8	0.38 J	0.79 U	1.8	4.2	140	1.3	51
Calcium, Total	NC	NC	68,000	50,000	91,000	200,000	55,000	64,000	60,000	55,000	19,000	1,600	24,000	97,000	28,000
Chromium, Total	NC	NC	25	12	8.4	10	12	29	9.5	9.5	3.9	4.3	8.4	5.5	8.1
Cobalt, Total	90	1,600	100	14	140	12	26	130	3.1	1.9	1.6	5.6	2.3	2.0	2.8
Copper, Total	11,000	3,100	200	1,600	260	8.7	29	170	13	5.0	3,400	40	15	15	35
Iron, Total	NC	NC	18,000	7,600	6,300	5,700	10,000	16,000	6,300	6,000	2,600	6,700	6,300	4,500	6,200
Lead, Total	90	400	2,500	170	1,300	3.6 J	27	2,000	11	3.9 U	67	44	16	8.4	18
Magnesium, Total	NC	NC	3,400	4,200	14,000	34,000	3,600	3,400	2,900	2,500	1,000	170	1,500	31,000	1,600
Manganese, Total	65	11,000	240	140	100	170	180	190	150	160	46	30	71	120	100
Mercury, Total	0.1	23	96	650	120	4.8	16	82	3.2	3.4	110	360	81	94	220
Nickel, Total	48	1,600	380	420	440	18	100	490	12	5.4	22	38	6.3	4.2	8.9
Potassium, Total	NC	NC	1,400	1,000	1,400	1,100	1,000	1,100	1,100	1,100	570	180 J	700	680	880
Selenium, Total	11	390	1.4 J	1.3 J	2.9	1.6 U	2.3	2.9	0.31 J	1.6 U	0.64 J	2.4	1.3 J	1.6 U	1.6
Silver, Total	1	390	1.5	8.4	0.48 J	0.78 U	0.28 J	1.8	0.26 J	0.79 U	0.8 U	0.76 U	0.81 U	0.79 U	0.8 U
Sodium, Total	NC	NC	940	1,400	1,700	1,200	740	800	650	760	1,100	290	550	1,000	330
Thallium, Total	3	5	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.5 U	1.6 U	1.6 U	1.6 U
Vanadium, Total	NC	78	9.8	7.1	9.8	9.4	13	10	11	8.6	6.9	3.9	8.7	5.7	10
Zinc, Total	930	23,000	400	240	220	22	64	420	38	11	78	33	28	15	50

Notes:
1. All results are in milligrams per kilogram (mg/kg)
2. Bold = Detection
3. NJDEP Soil Remediation Standards
   Yellow Highlight- Exceedance of Impact to Ground Water (IGW)
   Underline- Exceedance of Residential Soil Remediation Standard (R-SRS)
   (Brackets around cell indicates Reporting Limit (RL) exceeds NJDEP criteria)
4. 'NC' designates no NJDEP Screening Level criteria for given compound
5. 'U' designates the analyte is not detected at or above the listed reporting limit
6. 'J' designates an estimated value
7. '(a)' designates that blind duplicate sample SB-X-02-063014, was collected at SB-PIT-E-SLAB

Exhibit E

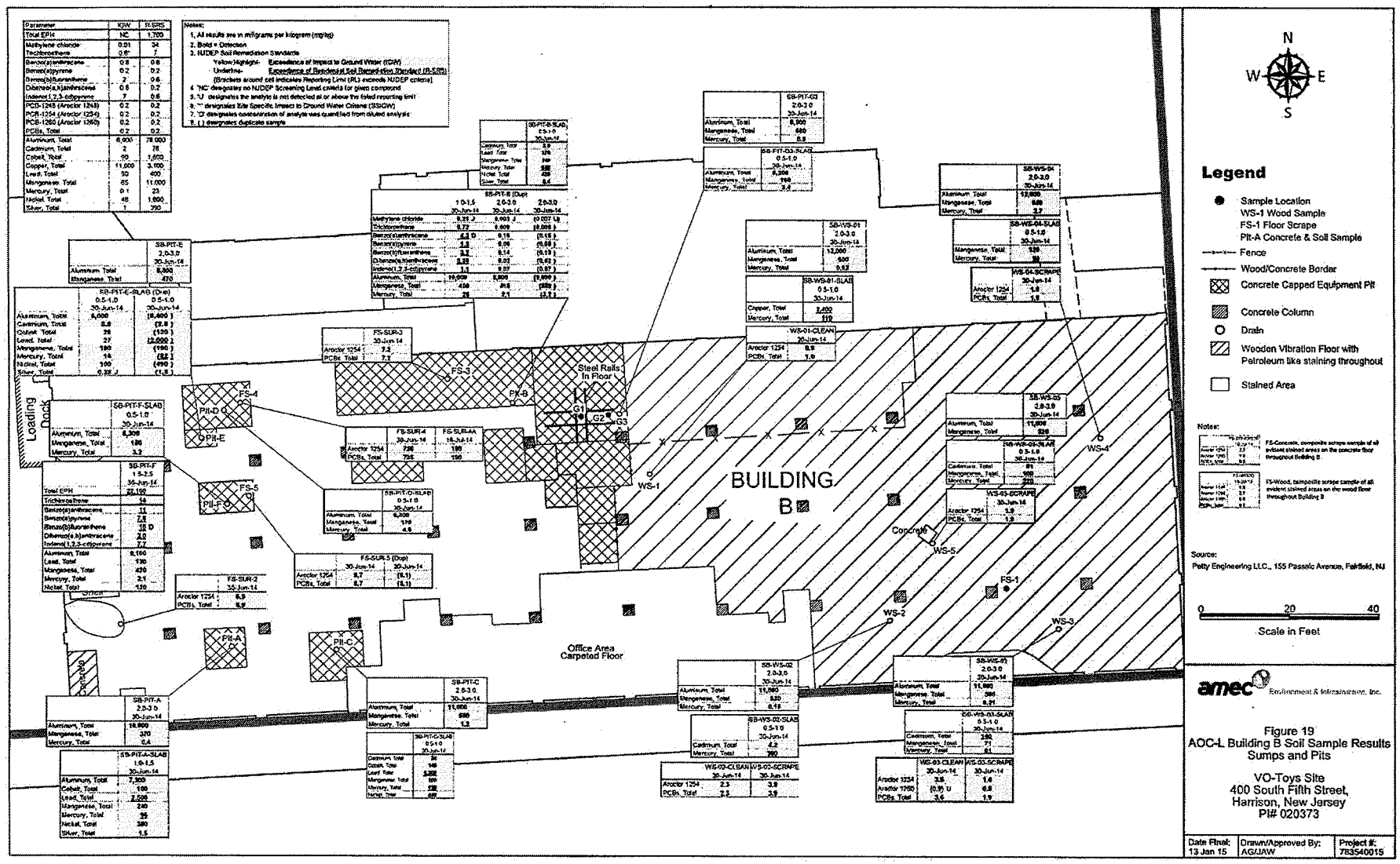

BUILDING B
Office Area Carpeted Floor
Steel Rails In Floor
Loading Dock
Concrete
Office
FS-1
FS-2
FS-3
FS-4
FS-5
FS-SUR-3
FS-SUR-4
FS-SUR-5 (Dup)
PIT-A
PIT-C
PIT-D
PIT-E
PIT-F
PIT-G
PIT-B
WS-1
WS-2
WS-3
WS-4
WS-5
G1
G2
G3
N
S
E
W
Legend
Sample Location
WS-1 Wood Sample
FS-1 Floor Scrape
Pit-A Concrete & Soil Sample
Fence
Wood/Concrete Border
Concrete Capped Equipment Pit
Concrete Column
Drain
Wooden Vibration Floor with Petroleum like staining throughout
Stained Area
Source:
Petty Engineering LLC., 155 Passaic Avenue, Fairfield, NJ
0
20
40
Scale in Feet
amec
Environment & Infrastructure, Inc.
Figure 19
AOC-L Building B Soil Sample Results Sumps and Pits
VO-Toys Site
400 South Fifth Street,
Harrison, New Jersey
PI# 020373
Date Final: 13 Jan 15
Drawn/Approved By: AG/JAW
Project #: 7835400015

Table 20
AOC-L (Building B Pits)
Soil Sampling Results
VO-Toys Site (PI # 020373)
400 South Fifth Street, Harrison, Hudson County, New Jersey

	Sample Location:		SB-PIT-A	SB-PIT-B			SB-PIT-C	SB-PIT-D	SB-PIT-E	SB-PIT-F	SB-PIT-G3	SB-WS-01	SB-WS-02	SB-WS-03	SB-WS-04	SB-WS-05
	Sample Depth:		2.0-3.0	1.0-1.5	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	1.5-2.5	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
	Sample Date:		30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14[a]	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14
	Lab Sample ID:		L1414459-19	L1414459-21	L1414459-22	L1414459-23	L1414459-25	L1414459-27	L1414459-29	L1414459-31	L1414459-33	L1414459-03	L1414459-07	L1414459-11	L1414459-14	L1414459-17
Parameter	IGW	R-SRS														
NJ Extractable Petroleum Hydrocarbons (mg/kg)																
C10-C12 Aromatics	NC	NC	NA	27 U	NA	NA	NA	NA	NA	113 U	NA	NA	NA	NA	NA	NA
C12-C16 Aliphatics	NC	NC	NA	287	NA	NA	NA	NA	NA	113 U	NA	NA	NA	NA	NA	NA
C12-C16 Aromatics	NC	NC	NA	41 U	NA	NA	NA	NA	NA	169 U	NA	NA	NA	NA	NA	NA
C16-C21 Aliphatics	NC	NC	NA	853	NA	NA	NA	NA	NA	273	NA	NA	NA	NA	NA	NA
C16-C21 Aromatics	NC	NC	NA	358	NA	NA	NA	NA	NA	500	NA	NA	NA	NA	NA	NA
C21-C36 Aromatics	NC	NC	NA	109 U	NA	NA	NA	NA	NA	4,530	NA	NA	NA	NA	NA	NA
C21-C40 Aliphatics	NC	NC	NA	136 U	NA	NA	NA	NA	NA	16,800	NA	NA	NA	NA	NA	NA
C9-C12 Aliphatics	NC	NC	NA	41 U	NA	NA	NA	NA	NA	169 U	NA	NA	NA	NA	NA	NA
Total EPH	NC	NC	70	1,500	328	372	25 U	24	24 U	22,100	24 U	110	25 U	37	232	25 U
Volatile Organic Compounds (mg/kg)																
1,1,1-Trichloroethane	0.3	290	0.001 U	0.06 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.14 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	0.007	1	0.001 U	0.06 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NC	NC	0.02 U	1.2 U	0.021 U	0.026 U	0.028 U	0.024 U	0.023 U	2.7 U	0.025 U	0.025 U	0.021 U	0.024 U	0.027 U	0.023 U
1,1,2-Trichloroethane	0.02	2	0.002 U	{0.09} U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	{0.2} U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1-Dichloroethane	0.2	8	0.002 U	0.09 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.2 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
1,1-Dichloroethene	0.008	11	0.001 U	{0.06} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichlorobenzene	NC	NC	0.005 U	0.31 U	0.005 U	0.007 U	0.007 U	0.006 U	0.006 U	0.68 U	0.006 U	0.006 U	0.005 U	0.006 U	0.007 U	0.006 U
1,2,4-Trichlorobenzene	0.7	73	0.005 U	0.31 U	0.005 U	0.007 U	0.007 U	0.006 U	0.006 U	0.68 U	0.006 U	0.006 U	0.005 U	0.006 U	0.007 U	0.006 U
1,2-Dibromo-3-chloropropane	0.005	0.08	0.005 U	{0.31} U	0.005 U	{0.007} U	{0.007} U	{0.006} U	{0.006} U	{0.68} U	{0.01} U	{0.01} U	{0.01} U	{0.01} U	{0.01} U	{0.01} U
1,2-Dibromoethane	0.005	0.008	0.004 U	{0.25} U	0.004 U	0.005 U	{0.006} U	0.005 U	0.005 U	{0.54} U	{0.01} U	{0.01} U	0.004 U	0.005 U	{0.01} U	0.005 U
1,2-Dichlorobenzene	17	5,300	0.005 U	0.31 U	0.005 U	0.007 U	0.007 U	0.006 U	0.006 U	0.68 U	0.006 U	0.006 U	0.005 U	0.006 U	0.007 U	0.006 U
1,2-Dichloroethane	0.005	0.9	0.001 U	{0.06} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloropropane	0.005	2	0.004 U	{0.22} U	0.004 U	0.005 U	0.01 U	0.004 U	0.004 U	{0.47} U	0.004 U	0.004 U	0.004 U	0.004 U	0.005 U	0.004 U
1,3-Dichlorobenzene	19	5,300	0.005 U	0.31 U	0.005 U	0.007 U	0.007 U	0.006 U	0.006 U	0.68 U	0.006 U	0.006 U	0.005 U	0.006 U	0.007 U	0.006 U
1,3-Dichloropropene, Total	0.005	2	0.001 U	{0.06} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	2	5	0.005 U	0.31 U	0.005 U	0.007 U	0.007 U	0.006 U	0.006 U	0.68 U	0.006 U	0.006 U	0.005 U	0.006 U	0.007 U	0.006 U
1,4-Dioxane	NC	NC	0.1 U	6.2 U	0.11 U	0.13 U	0.14 U	0.12 U	0.12 U	14 U	0.12 U	0.120 U	0.1 U	0.12 U	0.14 U	0.120 U
2-Butanone	0.9	3,100	0.01 U	0.62 U	0.011 U	0.013 U	0.014 U	0.012 U	0.012 U	{1.4} U	0.012 U	0.012 U	0.01 U	0.012 U	0.014 U	0.012 U
2-Hexanone	NC	NC	0.01 U	0.62 U	0.011 U	0.013 U	0.014 U	0.012 U	0.012 U	1.4 U	0.012 U	0.012 U	0.01 U	0.012 U	0.014 U	0.012 U
4-Methyl-2-pentanone	NC	NC	0.01 U	0.62 U	0.011 U	0.013 U	0.014 U	0.012 U	0.012 U	1.4 U	0.012 U	0.012 U	0.01 U	0.012 U	0.014 U	0.012 U
Acetone	19	70,000	0.003 J	2.2 U	0.010 J	0.006 J	0.007 J	0.003 J	0.003 J	4.9 U	0.005 J	0.005 J	0.004 J	0.043 U	0.004 J	0.022 J
Benzene	0.005	2	0.001 U	{0.06} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromochloromethane	NC	NC	0.005 U	0.31 U	0.005 U	0.007 U	0.007 U	0.006 U	0.006 U	0.68 U	0.006 U	0.006 U	0.005 U	0.006 U	0.007 U	0.006 U
Bromodichloromethane	0.005	1	0.001 U	{0.06} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	0.03	81	0.004 U	{0.25} U	0.004 U	0.005 U	0.006 U	0.005 U	0.005 U	{0.54} U	0.005 U	0.005 U	0.004 U	0.005 U	0.006 U	0.005 U
Bromomethane	0.04	25	0.002 U	{0.12} U	0.002 U	0.003 U	0.003 U	0.002 U	0.002 U	{0.27} U	0.003 U	0.003 U	0.002 U	0.002 U	0.003 U	0.002 U
Carbon disulfide	6	7,800	0.01 U	0.62 U	0.011 U	0.013 U	0.014 U	0.012 U	0.012 U	1.4 U	0.012 U	0.012 U	0.01 U	0.012 U	0.014 U	0.012 U
Carbon tetrachloride	0.005	0.6	0.001 U	{0.06} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chlorobenzene	0.6	510	0.001 U	0.06 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.14 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	NC	220	0.002 U	0.12 U	0.002 U	0.003 U	0.003 U	0.002 U	0.002 U	0.27 U	0.003 U	0.003 U	0.002 U	0.002 U	0.003 U	0.002 U
Chloroform	0.4	0.6	0.002 U	0.09 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.2 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chloromethane	NC	4	0.005 U	0.31 U	0.005 U	0.007 U	0.007 U	0.006 U	0.006 U	0.68 U	0.006 U	0.006 U	0.005 U	0.006 U	0.007 U	0.006 U
cis-1,2-Dichloroethene	0.3	230	0.001 U	0.06 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.14 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	NC	NC	0.02 U	1.2 U	0.021 U	0.026 U	0.028 U	0.024 U	0.023 U	2.7 U	0.025 U	0.025 U	0.021 U	0.024 U	0.027 U	0.023 U
Dibromochloromethane	*0.005*	3	0.001 U	{0.06} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dichlorodifluoromethane	39	490	0.01 U	0.62 U	0.011 U	0.013 U	0.014 U	0.012 U	0.012 U	1.4 U	0.012 U	0.012 U	0.01 U	0.012 U	0.014 U	0.012 U
Ethylbenzene	13	7,800	0.001 U	0.06 U	0.0004 J	0.0004 J	0.001 U	0.001 U	0.001 U	0.14 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Isopropylbenzene	NC	NC	0.001 U	0.06 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.14 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methyl Acetate	22	78,000	0.004 U	0.25 U	0.004 U	0.005 U	0.006 U	0.005 U	0.005 U	0.54 U	0.005 U	0.005 U	0.004 U	0.005 U	0.006 U	0.005 U
Methyl cyclohexane	NC	NC	0.004 U	0.25 U	0.004 U	0.005 U	0.006 U	0.005 U	0.005 U	0.54 U	0.005 U	0.005 U	0.004 U	0.005 U	0.006 U	0.005 U
Methyl tert butyl ether	0.2	110	0.002 U	0.12 U	0.002 U	0.003 U	0.003 U	0.002 U	0.002 U	{0.27} U	0.003 U	0.003 U	0.002 U	0.002 U	0.003 U	0.002 U
Methylene chloride	0.01	34	0.003 J	0.21 J	0.003 J	0.007 U	0.003 J	0.006 U	0.006 U	{0.68} U	0.006 U	0.003 J	0.005 U	0.003 J	0.003 J	0.003 J

Table 20
AOC-L (Building B Pits)
Soil Sampling Results
VO-Toys Site (PI # 020373)
400 South Fifth Street, Harrison, Hudson County, New Jersey

	Sample Location:		SB-PIT-A		SB-PIT-B			SB-PIT-C	SB-PIT-D	SB-PIT-E	SB-PIT-F	SB-PIT-G3	SB-WS-01	SB-WS-02	SB-WS-03	SB-WS-04	SB-WS-05
	Sample Depth:		2.0-3.0	1.0-1.5	2.0-3.0	2.0-3.0		2.0-3.0	2.0-3.0	2.0-3.0	1.5-2.5	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
	Sample Date:		30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14		30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14
	Lab Sample ID:		L1414459-19	L1414459-21	L1414459-22	L1414459-23		L1414459-25	L1414459-27	L1414459-29	L1414459-31	L1414459-33	L1414459-03	L1414459-07	L1414459-11	L1414459-14	L1414459-17
Parameter	IGW	R-SRS															
Styrene	3	90	0.002 U	0.12 U	0.002 U	0.003 U		0.003 U	0.002 U	0.002 U	0.27 U	0.003 U	0.003 U	0.002 U	0.002 U	0.003 U	0.002 U
Tetrachloroethene	0.005	2	0.001 U	{0.06} U	0.001 U	0.001 U		0.001 U	0.001 U	0.001 U	{0.14} U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	7	6,300	0.0002 J	0.02 J	0.0005 J	0.0008 J		0.0008 J	0.0005 J	0.001 J	0.2 U	0.0004 J	0.002 U	0.002 U	0.002 U	0.0004 J	0.0003 J
trans-1,2-Dichloroethene	0.6	300	0.002 U	0.09 U	0.002 U	0.002 U		0.002 U	0.002 U	0.002 U	0.2 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Trichloroethene	0.6*	7	0.002	0.72	0.009	0.009		0.002	0.001	0.004	14	0.012	0.003	0.008	0.0004 J	0.001 J	0.001 U
Trichlorofluoromethane	34	23,000	0.005 U	0.31 U	0.005 U	0.007 U		0.007 U	0.006 U	0.006 U	0.68 U	0.006 U	0.006 U	0.005 U	0.006 U	0.007 U	0.006 U
Vinyl chloride	0.005	0.7	0.002 U	{0.12} U	0.002 U	0.003 U		0.003 U	0.002 U	0.002 U	{0.27} U	0.003 U	0.003 U	0.002 U	0.002 U	0.003 U	0.002 U
Xylene (Total)	19	12,000	0.002 U	0.04 J	0.003 J	0.002 J		0.003 U	0.002 U	0.002 U	0.27 U	0.003 U	0.003 U	0.002 U	0.002 U	0.003 U	0.002 U
Total Conc	NC	NC	0.007	0.99	0.024	0.019		0.013	0.005	0.007	14	0.018	0.011	0.012	0.003	0.008	0.026
Total Tics	NC	NC	0.025 J	7.9 J	0.002 J	ND		0.052 J	0.021 J	0.043 J	ND	0.04 J	0.014 J	0.033 J	0.047 J	0.025 J	0.062 J
PAHs (mg/kg)																	
2-Chloronaphthalene	NC	NC	0.007 U	0.04 U	0.01 U	0.01 U		0.01 U	NA	0.01 U	0.14 U	0.01 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	8	230	0.002 J	0.07	0.01 J	0.005 J		0.01 J	NA	0.005 J	0.31	0.01 U	NA	NA	NA	NA	NA
Acenaphthene	110	3,400	0.003 J	0.04 U	0.01 U	0.01 U		0.01 U	NA	0.01 U	0.06 J	0.01 U	NA	NA	NA	NA	NA
Acenaphthylene	NC	NC	0.009	0.42	0.03	0.03		0.04	NA	0.01 J	2.5	0.005 J	NA	NA	NA	NA	NA
Anthracene	2,400	17,000	0.023	1.4	0.06	0.06		0.06	NA	0.06	4.8	0.01	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.8	0.6	0.092	4.3 D	0.16	0.15		0.12	NA	0.1	11	0.03	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.2	0.2	0.076	1.3	0.09	0.08		0.08	NA	0.06	7.8	0.02	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	2	0.6	0.12	3.2	0.14	0.13		0.11	NA	0.1	15 D	0.02	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NC	380,000	0.053	0.78	0.06	0.05		0.04	NA	0.04	5.7	0.01 J	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	25	6	0.039	1.3	0.05	0.05		0.05	NA	0.04	5.2	0.01 J	NA	NA	NA	NA	NA
Chrysene	80	62	0.1	3.8 D	0.14	0.14		0.12	NA	0.09	11	0.02	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.8	0.2	0.012	0.36	0.02	0.02		0.01	NA	0.01 J	2.0	0.01 U	NA	NA	NA	NA	NA
Fluoranthene	1,300	2,300	0.21	12 D	0.38	0.34		0.24	NA	0.26	17 D	0.06	NA	NA	NA	NA	NA
Fluorene	170	2,300	0.004 J	0.2	0.01 J	0.01 J		0.005 J	NA	0.01 U	0.06 J	0.01 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	7	0.6	0.056	1.1	0.07	0.07		0.05	NA	0.04	7.7	0.01 J	NA	NA	NA	NA	NA
Naphthalene	25	6	0.006 J	0.09	0.01 J	0.01 J		0.03	NA	0.02	0.96	0.01 U	NA	NA	NA	NA	NA
Phenanthrene	NC	NC	0.11	4.7 D	0.18	0.16		0.18	NA	0.23	10	0.02	NA	NA	NA	NA	NA
Pyrene	840	1700	0.18	9.0 D	0.27	0.25		0.19	NA	0.18	11	0.04	NA	NA	NA	NA	NA
Polychlorinated Biphenyls (mg/kg)																	
Aroclor 1016	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.03 U	0.03 U	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Aroclor 1221	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.03 U	0.03 U	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Aroclor 1232	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.03 U	0.03 U	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Aroclor 1242	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.03 U	0.01 J	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Aroclor 1248	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.03 U	0.03 U	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Aroclor 1254	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.04	0.07	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Aroclor 1260	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.03 U	0.03 U	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Aroclor 1262	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.03 U	0.03 U	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Aroclor 1268	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.03 U	0.03 U	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
PCBs, Total	0.2	0.2	0.04 U	0.03 U	0.03 U	0.03 U		0.04 U	NA	0.04	0.08 J	0.03 U	0.04 U	0.04 U	0.03 U	0.04 U	0.03 U
Total Metals (mg/kg)																	
Aluminum, Total	6,000	78,000	10,000	10,000	8,900	9,600		11,000	NA	6,800	9,100	8,900	12,000	11,000	11,000	12,000	11,000
Antimony, Total	6	31	1.5 J	4.2 U	4.0 U	4.1 U		4.0 U	NA	3.9 U	4.2 U	4.2 U	4.3 U	4.2 U	4.0 U	4.2 U	4.1 U
Arsenic, Total	19	19	7.9	5.0	5.0	5.7		6.4	NA	4.5	5.7	3.6	7.4	7.2	6.4	6.7	6.6
Barium, Total	2,100	16,000	72	91	92	100		110	NA	76	88	100	120	150	110	110	96
Beryllium, Total	0.7	16	0.4 J	0.5	0.5	0.5		0.6	NA	0.42	0.47	0.49	0.63	0.64	0.61	0.64	0.61
Cadmium, Total	2	78	0.9 U	0.8 U	0.8 U	0.8 U		0.1 J	NA	0.8 U	0.8 U	0.9 U	0.87 U	0.84 U	0.23 J	0.85 U	0.81 U
Calcium, Total	NC	NC	1,800	2,100	1,100	1,100		1,300	NA	1,000	3,300	1,200	1,400	4,300	1,700	2,000	1,000
Chromium, Total	NC	NC	16	16	17	19		21	NA	14	14	18	23	23	20	22	19
Cobalt, Total	90	1,600	6.2	8.2	7.9	8.6		12	NA	6.4	34	8.1	9.6	11	10	11	10
Copper, Total	11,000	3,100	16	49	21	25		15	NA	23	24	18	200	23	17	19	14
Iron, Total	NC	NC	17,000	18,000	18,000	19,000		23,000	NA	16,000	14,000	19,000	24,000	24,000	22,000	24,000	23,000
Lead, Total	90	400	82	56	11	11		12	NA	8.0	130	4.2 U	13	14	14	15	11
Magnesium, Total	NC	NC	2,700	4,600	4,700	4,900		6,900	NA	3,600	2,400	4,300	5,700	6,500	5,700	6,300	5,400

Table 20
AOC-L (Building B Pits)
Soil Sampling Results
VO-Toys Site (PI # 020373)
400 South Fifth Street, Harrison, Hudson County, New Jersey

			Sample Location:	SB-PIT-A	SB-PIT-B			SB-PIT-C	SB-PIT-D	SB-PIT-E	SB-PIT-F	SB-PIT-G3	SB-WS-01	SB-WS-02	SB-WS-03	SB-WS-04	SB-WS-05
			Sample Depth:	2.0-3.0	1.0-1.5	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	1.5-2.5	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0	2.0-3.0
			Sample Date:	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14[a]	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14	30-Jun-14
			Lab Sample ID:	L1414459-19	L1414459-21	L1414459-22	L1414459-23	L1414459-25	L1414459-27	L1414459-29	L1414459-31	L1414459-33	L1414459-03	L1414459-07	L1414459-11	L1414459-14	L1414459-17
Parameter	IGW	R-SRS															
Manganese, Total	65	11,000	370	400	510	550	580	NA	470	420	660	600	630	560	640	520
Mercury, Total	0.1	23	0.4	26	2.1	3.2	1.2	NA	0.1	2.1	0.8	0.92	0.18	0.21	2.7	0.04 J
Nickel, Total	48	1,600	12	22	17	20	29	NA	13	120	18	21	22	21	27	18
Potassium, Total	NC	NC	1,100	1,800	1,700	1,500	2,100	NA	1,100	880	1,500	1,800	2,100	1,500	1,800	1,600
Selenium, Total	11	390	1.8 U	1.7 U	1.6 U	1.6 U	1.6 U	NA	1.6 U	0.6 J	1.7 U	1.7 U	1.7 U	1.6 U	1.7 U	1.6 U
Silver, Total	1	390	0.9 U	0.8 U	0.8 U	0.8 U	0.8 U	NA	0.8 U	0.8 U	0.9 U	0.87 U	0.84 U	0.81 U	0.85 U	0.81 U
Sodium, Total	NC	NC	360	380	170	180	480	NA	160	290	160 J	220	280	190	250	120 J
Thallium, Total	3	5	1.8 U	1.7 U	1.6 U	1.6 U	1.6 U	NA	1.6 U	1.7 U	1.7 U	1.7 U	1.7 U	1.6 U	1.7 U	1.6 U
Vanadium, Total	NC	78	22	21	19	22	26	NA	17	20	23	28	29	26	24	25
Zinc, Total	930	23,000	47	60	45	47	72	NA	34	74	43	53	65	59	66	50

Notes:
1. All results are in milligrams per kilogram (mg/kg)
2. **Bold** = Detection
3. NJDEP Soil Remediation Standards
   Yellow Highlight- Exceedance of Impact to Ground Water (IGW)
   Underline- Exceedance of Residential Soil Remediation Standard (R-SRS)
   {Brackets around cell indicates Reporting Limit (RL) exceeds NJDEP criteria}
4. 'NC' designates no NJDEP Screening Level criteria for given compound
5. 'U' designates the analyte is not detected at or above the listed reporting limit
6. 'J' designates an estimated value
7. 'ND' designates compound was not detected
8. 'NA' designates that the sample was not analyzed for this compound
9. '**' designates Site Specific IGW Standard for TCE
10. 'D' designates concentration of analyte was quantified from diluted analysis
11. '(a)' designates that blind duplicate sample SB-X-01-063014, was collected at SB-PIT-B-2.0-3.0

Exhibit F

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: NOV 18 1996

80849

SUBJECT: National Priorities List Nomination of the Grand Street Mercury, N.J. Site

FROM: Richard L. Caspe, Director
Emergency and Remedial Response Division

TO: David Evans, Director
State, Tribal, and Site Identification Center

This memorandum is a request for placement of the Grand Street Mercury site, Hoboken, New Jersey on the National Priorities List (NPL) under the provisions in Section 300.425(c)(3) of the National Contingency Plan (NCP). Attached are the following documents which support this action:

1) The Public Health Advisory for the Grand Street Mercury site prepared by the Agency for Toxic Substances and Disease Registry (ATSDR) (attachment 1);

2) The Action Memorandum which describes the site history and documents the significant threat to public health posed by the site (attachment 2);

3) Sampling analysis for vapor sampling, sampling of personal belongings, soil sampling, floor sampling and brick sampling (attachment 3);

4) A cost analysis of several potential response actions at the site which demonstrate that it will be more cost effective to use remedial rather than removal authority to respond to the release (attachment 4).

BACKGROUND

On March 21, 1996, the U.S. Environmental Protection Agency (EPA) Region II Regional Administrator approved an Action Memorandum (see attachment 2) to conduct an emergency removal action at the Grand Street Mercury site in Hoboken, New Jersey. The removal action was necessary to dissociate the impacted residents from the metallic mercury and mercury vapors, prevent further off-site migration of mercury, and to assess the extent of the mercury contamination.

100617

The Grand Street Mercury site is located at 722 Grand Street, Hoboken, Hudson County, New Jersey. The Site is a former industrial building converted into 16 residential/studio spaces with an attached 4 story townhouse that was once used as an office. A parking lot is adjacent to the building. The average area of each residential/studio space exceeds 2,600 square feet. The building is approximately 100 feet by 175 feet, four stories high and is constructed of brick and masonry with interior wooden structural and flooring systems. The surrounding area is a mix of residential/commercial and industrial properties. The Hoboken High School is located across the street to the northeast and there are over 40,000 residents that live in a one-half mile radius from the Site.

The Grand Street Mercury site was the location of various manufacturing and industrial businesses up to 1993. Previous owners of the building include the General Electric Vapor Lamp Company (1911-1939), General Electric Company (1939-1948), Cooper-Hewitt Electric Company (1910-1911 and 1948-1955) and the Quality Tool and Die Company (1955-1979). John Pascale, Sr., and the Quality Tool and Die Company sold the building in 1979 to David and Sherill Pascale. The Pascales sold the building in 1993 to the Grand Street Artists Partnership (GSAP). The GSAP split the building into 16 units and began selling the units to individual partners. After renovation and the construction of apartment and artist studios, residents began moving into the building in mid to late 1994. There were 34 people living in the building as of December 19, 1995.

SIGNIFICANT THREAT TO PUBLIC HEALTH

On January 4, 1996, the Hoboken Health Department (HHD), based on advice from the New Jersey Department of Health (NJDOH), declared the building unfit for human habitation and ordered the residents to vacate the building by January 9, 1996. Due to inclement weather conditions, the deadline of January 9, 1996 was extended two days. All residents had vacated the building by 1600 hours on January 11, 1996.

The ATSDR, on January 22, 1996, issued a Public Health Advisory (PHA - see attachment 1) that proclaimed "an imminent public health hazard is posed to residents of 722 Grand Street from past, current and potential future exposures via inhalation, direct dermal contact and possible ingestion of metallic (elemental) mercury and mercury vapor." In addition, the PHA states "the potential exists for mercury-contaminated possessions to be taken out of the building to continue to expose residents of 722 Grand Street, contaminate other areas and expose other members of the public." The PHA recommended that the residents be dissociated from mercury exposure in the 722 Grand Street building.

Visible mercury contamination has been observed under the fifth floor of the building. A survey of the air mercury vapor above cracks and holes in floors and walls of lower units indicates that mercury vapors and liquid mercury have migrated throughout the building. Mercury vapors have been detected in indoor air samples at concentrations that exceed a level of public health concern (see attachment 3).

Elevated concentrations of mercury have been detected in urine samples from residents. Adverse health effects are associated with mercury levels greater than 20 µg/L. Mercury concentrations ranged from 3 to 102 µg/L, and 20 samples had mercury concentrations equal to or greater than 20 µg/L. The elevated concentrations of mercury detected in the residents may be associated with subtle neurological changes and renal tubule effects.

There is a threat of a release of mercury vapor from a major fire at the Grand Street Mercury site that would have significant adverse health effects on the surrounding population, possibly resulting in the death of some exposed individuals. Acute exposure to high concentrations of mercury vapor can cause severe pulmonary toxicity, which can lead to death. The NIOSH Immediately Dangerous to Life and Health (IDLH) value for mercury is 10 mg/m^3. The IDLH value represents the concentration of a substance which ensures that a worker can escape, within a given amount of time (usually 30 minutes), without suffering injury or irreversible health effects from exposure to that concentration. There are no established lethal doses for mercury vapor, although there are several case reports of humans that have died or exhibited pulmonary toxicity from exposure to very high concentrations of mercury vapor.

Mercury was detected in sub-surface soil samples collected from the parking lot adjacent to the building (see attachment 3). The highest concentration detected was 290 ppm. Mercury was also detected in soil samples taken from the backyard of the neighboring residence (see attachment 3). There is a further threat of mercury being released to the environment by transport of contaminated personal possessions from the site, transport of contaminated construction debris from the site, and volatilization and transport via the sewer system in the building. A private cleanup conducted in a portion of the building has resulted in the generation of 10 to 15 gallons of mercury and mercury contaminated debris. This material is presently being stored at the rear of the building.

ATSDR and NJDOH will continue to provide health consultations to the impacted residents, review environmental and community health related information and concerns, determine appropriate additional health follow-up actions and address citizens health-related concerns. In addition, ATSDR and the NJDOH will provide the residents with follow-up urine sampling and analysis until levels of mercury in urine fall below 20 µg/L. Based upon the results of

indoor air mercury surveys, urine mercury analysis and the presence of pools of elemental mercury in the floors, ATSDR concluded that the building at 722 Grand Street poses an imminent public health hazard.

COST EFFECTIVENESS

Region 2 anticipates, based on current information regarding the possible options for cleanup of the Grand Street Mercury site, that it will be more appropriate and more cost effective to use EPA's remedial authority than to use its removal authority to respond to the release. At this time, EPA anticipates that there will be complex issues surrounding remediation of the Grand Street Mercury site. These issues include: assumptions regarding future land use at the site; the extent of off-site contamination; the potential for off-site migration of contaminants (including the potential for a catastrophic release such as in the case of a fire); and, the extent of on-site soil contamination at the site. These issues are best and most cost-effectively analyzed and addressed in the context of the remedial program.

Removal activities often involve responses taken to eliminate an immediate and imminent threat to human health and/or the environment. These actions are typically implemented in the short term to alleviate a threat, on a temporary basis, until remedial or other authority can be used to address the long-term health threat in a cost effective manner. Because the removal authority was meant to be a short term solution, Congress established a 1 year statutory time limit and $2 million statutory cost limit for each removal response. Furthermore, the national removal extramural cleanup budget is limited to approximately $100 million per fiscal year. Of this funding, EPA Region II was allocated approximately $13 million last year. It is the responsibility of the regions to prioritize removal activities in order to maximize the use of these funds. With these limited funds the Region was able to conduct 46 removal actions. However, due to limited funding, the removal program cannot afford to conduct many long-term, extensive responses. Because the complex nature of activities anticipated at the site could prove costly, EPA would risk beginning a response at the site that could not be completed because the cost could exceed the funds available for removal actions.

The investigation and remediation of the contamination at this site is clearly a project that would strain the resources of the removal program. The remediation anticipated for the site will be far beyond that which is typically performed under a removal action. At a minimum, some elements have been identified that EPA anticipates it will need to evaluate as part of the remedy selection process at the site (see attachment 4). These elements include permanent relocation (either with or without acquisition of the property), temporary relocation, building demolition, and building reconstruction. EPA anticipates that it will evaluate the cleanup of the building to residential standards. In addition,

cleanup of the building to industrial standards has also been suggested as an option by one of the potentially responsible parties. The elements and options discussed above will likely involve considerable cost and time periods for study, planning and, if necessary, implementation.

While all of these responses may meet the emergency exemption criteria of Section 104(c) of CERCLA, at this time, it appears that it will be more cost-effective to use EPA's remedial authority rather than EPA's removal authority to respond to the release. EPA anticipates that investigation and clean-up costs could total well over $2 million (see attachment 4). In addition, it is likely that there will be substantial relocation costs (see attachment 4). As a consequence, due to the limited removal funds nationwide and within the Region, other sites which warrant removals may not be addressed in a timely manner. Moreover, using remedial authority rather than removal authority would be more cost effective in that it would require the states' 10% cost sharing and would provide greater flexibility in determining the resources to be used in the eventual remediation of the site. Further, permanent relocation, should it be deemed necessary, will only be undertaken by EPA pursuant to its remedial authority.

EPA cautions that this evaluation of the cleanup elements associated with the Grand Street site is only for the purposes of NPL listing and by no means a definitive evaluation of cleanup options. EPA anticipates it will conduct a complete evaluation of cleanup options as part of the remedial process at the site.

RECOMMENDATION

The Grand Street Mercury site meets the NPL listing criteria of Section 300.425(c)(3) of the NCP. ATSDR has recommended dissociation of individuals from the release (attachment 1). Region 2, NJDOH and ATSDR concur that the release poses a significant threat to public health (discussion above and attachment 2), and Region 2 anticipates that it will be more cost-effective to use remedial authority rather than removal authority to respond to the release (discussion above and attachment 4). Region 2 recommends the placement of this site on the NPL.

Attachments

cc: Robert Shinn, Commissioner
New Jersey Department of
Environmental Protection
Barry Johnson, ATSDR
Richard Gimello, NJDEP
Arthur Block, ATSDR
Jim Pasqualo, NJDOH

bcc: J. Malleck, SPB:PRS
R. Vaughn, SPB
R. Salkie, RAB
J. Harmon, RAB
C. Garypie, ORC
L. Carson, ERRD

ATTACHMENT 1

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Agency for Toxic Substances
and Disease Registry
Atlanta GA 30333

JAN 22 1996

The Honorable Carol M. Browner
Administrator
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Ms. Browner:

Enclosed is a Public Health Advisory concerning past, current, and possible future exposures to mercury by the occupants of building/property on 722 Grand Street, Hoboken, Hudson County, New Jersey.

Based on the environmental (air) and biological (urine) sampling results and the presence of visible mercury contamination under the fifth floor of the building, the Agency for Toxic Substances and Disease Registry (ATSDR) has determined that significant human exposures to mercury vapors have occurred in the building. ATSDR considers these exposures to represent an imminent public health hazard. Two factors warrant this Public Health Advisory: (1) the existing public health hazard, and (2) the potential for mercury-contaminated possessions to be taken out of the building; such possessions can continue to expose residents of 722 Grand Street, contaminate other areas, and expose other members of the public.

The building on 722 Grand Street was the former location of several industrial operations dating back to 1920. The building was renovated into apartments and artist studios--residents began moving into the building in mid to late 1994. Residents, the Environmental Protection Agency (EPA) Region II, and the New Jersey Department of Health, have observed visible mercury contamination under the fifth floor of the building. Testing of the air space above cracks and holes in floors and walls of lower units indicates that mercury contamination has migrated further throughout the building. Mercury has been detected in indoor air samples at concentrations that exceed a level of public health concern.

Furthermore, elevated concentrations of mercury have been detected in urine samples from residents. The urinary mercury concentrations in 20 of 29 residents tested exceeded the range (0-20 µg/L) for an unexposed adult population. Among the

residents of the building, the normalized urinary concentrations of mercury ranged from 3 to 135 µg/g creatinine. The elevated concentrations of mercury detected in the residents may be associated with subtle neurological changes and renal tubule effects.

In the Public Health Advisory, ATSDR recommends that appropriate risk management procedures be implemented to dissociate the public from mercury exposure in the 722 Grand Street building and to ensure that occupants' belongings are free of mercury contamination prior to taking the belongings to another place of residence. Based on ATSDR's findings, the EPA Region II, the Hoboken Health Department, and the City of Hoboken have agreed to:

1. The Hoboken Health Department will issue the necessary orders or institute legal action, as required, to ensure dissociation of the occupants from the building (exposure).

2. EPA Region II will provide temporary housing for the residents of the building.

3. The town of Hoboken will provide security for the building upon the departure of residents.

4. EPA Region II will provide screening and logistics regarding the identification of contaminated personal belongings and perform other testing to determine the scope of the mercury contamination of the building.

The enclosed Public Health Advisory expresses ATSDR's concerns and describes the events associated with the site. Dr. Barry Johnson, Assistant Administrator, ATSDR, has written to the following individuals notifying them of this advisory: Ms. Jeanne Fox, Regional Administrator, EPA Region II; Mr. Leonard Fishman, Commissioner of Health, New Jersey Department of Health; Elin A. Gursky, Sc.D., Senior Assistant Commissioner, New Jersey Department of Health; Mr. Richard Gimello, Assistant Commissioner Site Remediation, New Jersey Department of Environmental Protection; and Frank S. Sasso, M.S., M.SW., Health Officer, Hoboken Health Department.

Sincerely,

David Satcher, M.D., Ph.D.
Administrator

Enclosure

PUBLIC HEALTH ADVISORY

FOR

722 GRAND STREET (A288)

HOBOKEN, HUDSON COUNTY, NEW JERSEY

JANUARY 22, 1996

U.S. Department of Health and Human Services
Public Health Service
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

INTRODUCTION

This public health advisory is to notify the Environmental Protection Agency (EPA), the State of New Jersey, the town of Hoboken, and the public of an ongoing imminent health hazard. This hazard is associated with the past, current, and potential future exposures to mercury present in the building and residences of 722 Grand Street located in Hoboken, New Jersey. This public health advisory is issued by the Agency for Toxic Substances and Disease Registry (ATSDR) in response to a request for assistance from Region II EPA, the New Jersey Department of Environmental Protection (NJDEP), the New Jersey Department of Health (NJDOH), the Hudson Regional Health Commission (HRHC), and the Hoboken Health Department (HHD). As a result of this request, ATSDR and NJDOH have provided technical support in reviewing environmental and biological data and providing a health consultation for the HRHC and the HHD [1]. ATSDR and NJDOH, with concurrence from HRHC and HHD, have concluded that the presence of visible metallic mercury in one of the building unit's subflooring, the levels of mercury vapor detected in living space air, and elevated mercury levels in occupants' urine samples, warrant the issuance of a public health advisory.

The 17 residential living/working condominium units and attached townhouse in the 722 Grand Street structure are included in this advisory. There are indications, however, that additional areas, contiguous to the 722 Grand Street building, may need further public health evaluation. ATSDR has determined that an imminent public health hazard is posed to occupants of this building based on the following: 1) urine mercury levels in samples collected from 29 of the 37 occupants by HRHC and HHD on December 27, 1995; 2) breathing zone air mercury levels as determined by EPA Region II on December 27, 1995, and NJDOH on December 22, 1995; 3) breathing zone air mercury levels in selected units (monitored by private consultants in March and November of 1995); and 4) results of November and early December 1995, mercury urine levels in samples from selected residents (from their private physician). The health agencies stress that although liquid metallic mercury has been observed in one unit and in the subflooring of the 5th floor, environmental (air) and biological (urine) data indicate that exposure is occurring throughout the building. Furthermore, the nature of mercury vapors and liquid mercury (i.e., mobility) makes every unit in the building subject to future contamination at levels possibly higher than have been detected by mercury vapor analysis to date. Therefore, this public health advisory applies to all building occupants. The major route of human exposure to the mercury in this building is inhalation of mercury vapor. Secondary routes of exposure include dermal contact with mercury vapors or liquid mercury, and possible ingestion of liquid mercury.

The National Contingency Plan (40 CFR Part 300.400-420) describes the types of activities required and authorized in response to a hazardous substance release at a potentially hazardous site. These activities include notification of a release (section 300.404(f)(1)), evaluation of the site (section 300.410), and factors to be considered related to a removal action (section 300.415). These factors include the migration of contaminants, the threat of fire or explosion, and other events that could threaten public health. In accordance with Section 300.425 and based on the public health implications of the site, ATSDR believes that this site be considered for inclusion on the EPA National Priorities List, and/or use other statutory, regulatory or administrative authorities, as appropriate, to further characterize the areas of concern and take necessary action. ATSDR recommends that actions be taken to:

1. Dissociate the public as soon as possible from mercury exposure in the 722 Grand Street building.

2. Ensure that residents' belongings are free of mercury contamination before they are removed from the building; such

possessions can continue to expose residents of 722 Grand Street, contaminate other areas, and expose other members of the public.

BACKGROUND

The 722 Grand Street building/property is located in the City of Hoboken, Hudson County, New Jersey. Formerly an industrial property, the five-story structure, with attached townhouse, was recently renovated into condominium units and artists studios [2]. Commercial/industrial occupants of the building included the General Electric Vapor Lamp Company (1920 - 1939), the General Electric Corporation (1939 - 1945), the Cooper-Hewitt Corporation (1948 - 1955), and the Quality Tool and Dye Company (1955 - 1993) [3].

This is a brick building with wooden floors and solid wood floor supports. Renovation included the installation of a new elevator, and installation of new plumbing and electrical conduits throughout all floors. There are four living units on each floor [2]. Residential occupation of the building began in mid to late 1994. Currently, there are 37 occupants in this building.

In early 1995, during renovation of one of the fifth floor units, pools of mercury were observed in the subflooring. Subsequently, the tenants' association hired a private contractor to remediate the contamination. During the remediation, some mercury-contaminated debris was removed from the unit [2]. In March 1995, a consultant performed a mercury vapor survey of several units on the 1st through 5th floors [4]. Detectable levels of mercury vapor were found on the 3rd, 4th, and 5th floors. In breathing zone areas, the highest level of mercury was 5 $\mu g/m^3$ (5th floor); in source areas, the highest level of mercury was 888 $\mu g/m^3$ (found in subflooring on the 5th floor).

In late 1995, a 4th floor resident observed drops of mercury in his living space, including on stove and counter top surfaces. The remediation contractor subsequently performed some cleanup of the unit. In November 1995, several residents hired a different consultant to conduct a mercury air survey in their units and common areas of the building [2]. Mercury vapor levels in breathing zone air samples in the 3rd floor unit ranged from 4 - 9 $\mu g/m^3$, and from 24 - 77 $\mu g/m^3$ at wall and floor openings. Mercury vapor levels in the breathing zone air from the 4th floor ranged from 7 - 21 $\mu g/m^3$, and from 14 - 26 $\mu g/m^3$ at wall and floor openings. Common areas of the 3rd through 4th floors detected mercury vapor from 12 - 18 $\mu g/m^3$. Through their private physicians, these residents underwent urine mercury testing in late November and early December of 1995. Mercury results ranged from 11 to 65 micrograms (μg) of mercury per liter (L) of urine ($\mu g/L$). Urine concentrations of mercury in unexposed adults are less than 20 $\mu g/L$ [8].

At the request of HHD and HRHC, two additional air mercury surveys were conducted: by NJDOH on December 22, 1995; and, by EPA Region II on December 27, 1995 [5]. The December 27 sampling was conducted after residents had been encouraged to increase ventilation and lower heat to reduce possible exposures to mercury vapors. The December 22 survey was conducted on the 3rd through 5th floors. The maximum levels of mercury detected on these floors were 10 - 50 $\mu g/m^3$ (detection limit of the Bacarach Mercury Vapor Analyzer is 10 $\mu g/m^3$). The December 27 sampling event surveyed 15 units, an attached townhouse, and hallways on each floor. Air was sampled in the breathing zone (approximately five feet above the floor) and approximately 6 inches above the floor. Mercury was detected in nine units at levels up to 13 $\mu g/m^3$. Visible puddles of mercury were observed between the second and third layer of wood flooring of a fifth floor condominium unit [5]. Detectable airborne concentrations of mercury were not found in the hallways (detection limit of the Jerome 421 Mercury Vapor Analyzer is 1 $\mu g/m^3$).

On December 27, 1995, the HHD and HRHC collected urine samples from 31 persons for total mercury and creatinine analyses: 29 samples were from residents and

two samples were from workers who had made repairs in the building. Results of total mercury analysis indicated mercury levels ranging from 3-102 µg/L (the 3 µg/L sample was a unit owner who does not reside in the building). Twenty of the urine samples contained mercury concentrations equal to or greater than 20 µg/L [6]. Five of the 6 children tested had urine mercury concentrations greater than 20 µg/L [6]. Mercury levels in urine, adjusted for creatinine, ranged from 3 to 134 µg mercury/gram creatinine [6].

During the December 27 urine collection, building occupants were encouraged by the HRHC and HHD to increase the ventilation in their homes and lower their heat to reduce their possible exposures to mercury vapor. They were also encouraged to relocate. On December 29, 1995, the HHD, HRHC, and NJDOH met with occupants of 722 Grand Street to provide them with results of their individual urine analysis and to assist them in interpreting the health implications of these results and the air mercury results. The residents were also advised of the health agencies concerns and encouraged to relocate as soon as practicable. On January 4, 1996, ATSDR, NJDOH, EPA, NJDEP, HHD, City of Hoboken, and the HRHC met with the residents to present the findings of the ATSDR and NJDOH health consultation and to discuss relocation issues.

BASIS FOR THE ADVISORY

This public health advisory is being issued based on the following:

1. An imminent public health hazard is posed to residents of 722 Grand Street from past, current, and potential future exposures via inhalation of mercury vapors, with minor exposure by direct dermal contact, and possible ingestion of liquid mercury. There are indications, however, that additional areas, contiguous to the 722 Grand Street building, may need further public health evaluation.

2. The potential exists for mercury-contaminated possessions to be taken out of the building; such possessions can continue to expose residents of 722 Grand Street, contaminate other areas, and expose other members of the public.

Mercury has been detected in indoor air at concentrations that exceed a level of public health concern. The most significant human exposure route of metallic mercury is inhalation of the vapors. Exposure is also possible through direct dermal contact with or ingestion of liquid mercury. Because mercury vapors are heavier than air, they tend to be concentrated near the floor or ground. Therefore, children are especially at risk of mercury vapor inhalation.

The central nervous system is a key target for mercury toxicity, and both neurologic and psychologic effects can result from exposures to elemental mercury. Fine tremors in the fingers, eyelids, and lips are early signs of mercury toxicity. With increasing exposure, tremors in the hands and arms may interfere with precise movements and impair skills such as handwriting. Common psychological symptoms of mercury toxicity include depression, irritability, exaggerated response to stimuli, excessive shyness, insomnia, and emotional instability.

Associations between urinary mercury levels and health effects have been studied in adults with occupational exposures to mercury. Urine mercury concentrations of 20-100 µg/L are associated with subtle neurological changes, even before overt symptoms occur [7,8]. Early signs and symptoms of exposure to mercury might include decreased responses on tests of nerve conduction, brain-wave activity, and verbal skills. Early indications of tremors might also be observed upon testing. At higher urinary mercury concentrations (100-500 µg/L), effects become more severe, and psychological symptoms such as

irritability, depression, memory loss, and other nervous system disorders may appear [7,8].

Indoor air mercury levels in the breathing zone ranged from non-detectable to 50 $\mu g/m^3$. At floor level, concentrations as high as 888 $\mu g/m^3$ were detected. At other residential properties contaminated with mercury, ATSDR has recommended that indoor air mercury levels should be below 0.3 $\mu g/m^3$ (0.0003 mg/m^3) in order to protect human health [9,10]. Mercury levels above 0.3 $\mu g/m^3$ exceed ATSDR's chronic Minimal Risk Level (MRL) and EPA's Reference Concentration (RfC). Therefore, indoor air levels in the breathing zone at the Grand Street property exceed an acceptable level. At floor level, where children might crawl and play, mercury levels were even higher.

Urine concentrations of mercury in unexposed adults are less than 20 $\mu g/L$ [8]. Because mercury is naturally occurring in the environment, a "small" amount (mean 4-5 $\mu g/L$; upper limit 20 $\mu g/L$) in the urine is considered normal [8]. This level was exceeded by 69% of the residents of the building who were tested, which indicates that they are being exposed to mercury at levels of health concern. Urinary concentrations of mercury (as $\mu g/L$) can be influenced by the rate of urinary output. To correct for variations in urinary output, the concentration of creatinine was also determined in the samples, and the mercury concentrations were calculated as μg mercury/gram creatinine. Among the residents of the building, the normalized urinary concentrations of mercury ranged from 3 to 134 μg/gram creatinine. In occupational exposure studies, urine mercury concentrations of 50 - 100 μg/gram of creatinine were associated with increased tremors and impaired eye-hand coordination [11]. In addition, urine mercury levels of >25 μg/gram of creatinine were associated with renal tubule effects, as evidenced by increased urinary levels of certain proteins [12].

The occurrence of high levels of mercury in the urine of 69% of the residents tested indicates that they are being exposed through a common source, rather than through occupational or other off-site sources. Gross (liquid) mercury contamination inside the 722 Grand Street building is the likely source of mercury exposure, with exposures occurring primarily by inhalation of contaminated indoor air. Moreover, analysis of the urine mercury results indicates that for those persons who reported spending fewer hours in the building, and those who reported living in the building for a shorter time, had lower urine mercury levels than others [13]. Where gross (liquid) mercury contamination is present in the units, secondary exposure could occur by dermal absorption or by direct oral ingestion.

The health agencies stress that although liquid metallic mercury has been observed in one unit and in the subflooring of the 5th floor, environmental (air) and biological (urine) data indicate that exposure to mercury is occurring throughout the building. Furthermore, the nature of mercury vapors and liquid mercury (i.e., mobility) makes other units in the building subject to future contamination at levels possibly higher than have been detected by mercury vapor analysis to date. Therefore, the health concern applies to the building and its occupants.

CONCLUSIONS

1. Based on the results of indoor air mercury surveys, urine mercury analyses, and the presence of pools of elemental mercury in the subflooring of one 5th floor unit, ATSDR concludes that the building at 722 Grand Street poses an ongoing imminent public health hazard. There are indications, however, that additional areas, contiguous to the 722 Grand Street building, may need further public health evaluation.

2. Visible mercury contamination has been detected under the 5th floor of the building. Testing of the air space above cracks and holes in floors

and walls of lower units indicates that mercury contamination has migrated further throughout the building.

3. Mercury has been detected in indoor air samples at concentrations that exceed a level of public health concern.

4. Elevated concentrations of mercury have been detected in urine samples from residents. The urinary mercury concentrations in 20 of 29 residents exceeded the range (0-20 µg/L) for an unexposed adult population. The elevated concentrations of mercury detected in the residents may be associated with subtle neurological changes and renal tubule effects.

5. The potential exists for mercury-contaminated possessions to be taken out of the building; such possessions can continue to expose residents of 722 Grand Street, contaminate other areas, and expose other members of the public.

RECOMMENDATIONS AND ACTIONS TAKEN OR PLANNED

The ATSDR recommends that the regulatory/enforcement agencies (EPA, NJDEP, and/or the City of Hoboken) take the following actions with continued cooperation and coordination with the health agencies (ATSDR, NJDOH, HRHC, and HHD):

1. Dissociate the public as soon as possible from mercury exposure in the 722 Grand Street building.

2. Ensure that occupants' belongings are free of mercury contamination before they are removed from the building.

3. Consider the 722 Grand Street building/property for inclusion on the EPA National Priorities List, and/or use other statutory, regulatory or administrative authorities as appropriate to further characterize the areas of concern and take necessary action.

OTHER RECOMMENDATIONS

1. All permanent occupants of the building, including infants and children, should be referred, without delay, for evaluation by a physician with expertise in environmental and occupational health. The purpose of the referral is to identify and follow-up any abnormalities of immediate clinical significance, particularly those that may be related to mercury exposure.

2. A systematic assessment of the exposed population, using ATSDR's basic test batteries for kidney dysfunction and neurobehavioral disorders in adults and children, should be considered after the most urgent concerns--such as eliminating exposures and diagnosis and treatment of any abnormalities of immediate clinical significance--have been addressed.

ATSDR, NJDOH, EPA, NJDEP, HRHC, and HHD have or will perform the following actions:

1. ATSDR and NJDOH are available, upon request, to assist the enforcement/regulatory agencies in providing public health input into risk management decisions.

2. ATSDR and NJDOH will continue to provide health consultations to review environmental, health outcome, and community health concern

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2. ATSDR and NJDOH will continue to provide health consultations to review environmental, health outcome, and community health concern

information and determine appropriate additional health follow-up actions.

3. NJDOH, under a cooperative agreement with ATSDR, will work with the HHD and HRHC to continue health professional education to advise local health care providers and public health professionals of the nature and possible consequences of exposure to metallic (elemental) mercury. The education effort will include providing information on routes of human exposure to metallic mercury, symptoms of exposure, and testing and treatment. Furthermore, ATSDR will provide technical consultation to HHD and NJDOH on the support needed by residents in response to relocation and personal health concerns.

4. NJDOH, under a cooperative agreement with ATSDR, will work with the HHD and HRHC to continue community health education efforts. This will include the identifying and providing support for the special needs of the affected tenants of the building.

5. The Environmental and Occupational Health Institute of New Jersey, in cooperation with ATSDR and NJDOH, will provide to all permanent occupants of the building, including infants and children, an immediate clinical evaluation of their exposures to mercury.

6. ATSDR and NJDOH, working with HHD, will provide a urine analysis for mercury to current and former residents who did not previously provide a urine sample.

7. ATSDR and NJDOH will provide to the residents, once relocated, follow-up urine sampling and analysis until levels of mercury in urine fall below 20 µg/L.

8. HHD has issued the necessary orders or legal action, as required, to ensure dissociation of the occupants from the building (exposure elimination). All agencies assisted in the dissociation of the residents from the building.

9. HHD served as the point of contact for public agencies, affected residents, the media, and the public while the residents vacated the building, but is no longer acting in that capacity.

10. The town of Hoboken provided for initial security of the building while the residents vacated the building, but that function is now being performed by EPA.

11. HRHC will provide technical support and advice to the HHD and other agencies, as requested.

12. HRHC will assist with air monitoring activities at the site, as required.

13. EPA and NJDEP will provide screening and logistics regarding the identification of contaminated personal belongings.

14. NJDOH will respond to health questions from former workers at the 722 Grand Street building (including employees of General Electric and Quality Tool and Dye Corporations, and construction contractors involved with building renovation). Those who inquire will be asked about medical and exposure history, be sent information on consequences of mercury exposure and a list of occupational medical specialists, and be offered urine mercury testing.

For additional information, please contact ATSDR at the following address:

Robert C. Williams, P.E., DEE
Director, Division of Health Assessment and Consultation
Agency for Toxic Substances and Disease Registry
1600 Clifton Road, NE, E-32
Atlanta, Georgia 30333
(404) 639-0610

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1. Agency for Toxic Substances and Disease Registry; Health Consultation for 722 Grand Street, Hoboken, NJ; January 3, 1996.

2. "Mercury Vapor Survey 722 Grand Street, Hoboken, New Jersey," November 8, 1995. Prepared by Detail Associates, Inc., Englewood, NJ.

3. Personal Communication, Gary Garetano, Assistant Director, Hudson Regional Health Commission, January 2, 1996.

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February 16, 1996

To: Jack Harmon, OSC
Fm: Rod Turpin, Senior Environmental Scientist

Subj: Air Quality Modeling for Grand Street Mercury Site Hoboken, N.J.

Enclosed is the requested air quality modeling for the subject site (REAC February 16, 1996 Report). Please note that this report reflects the ambient air concentrations of mercury due to volatization of 1000 pounds of mercury and highlights the mercury action levels of IDLH (10 mg/m^3), and OSHA PEL (0.1 mg/m^3).

Three models (INPUFF, ALOHA, and SCREEN) were selected to predict ambient conditions in this scenario. INPUFF is an integrated PUFF model. ALOHA is an emergency release model and SCREEN is a simple steady-state Gaussian dispersion model.

Enclosure

TECHNICAL REPORT ABSTRACT

WORK ASSIGNMENT NO.:	03347-040-0175-01
REPORT TITLE:	FINAL REPORT GRAND STREET MERCURY SITE AIR QUALITY MODELING HOBOKEN, NEW JERSEY FEBRUARY 1996
REPORT DATE:	02/16/96
NO. OF PAGES IN REPORT:	45

CONTRACT NO:	68-C4-0022
PRIME CONTRACTOR:	ROY F. WESTON, INC.
PROJECT OFFICER:	RAJESHMAL SINGHVI
ADDRESS/TELEPHONE:	U.S. EPA/ERT 2890 WOODBRIDGE AVENUE EDISON, NJ 08837 908-321-6761
PROGRAM OFFICE:	ENVIRONMENTAL RESPONSE TEAM (ERT)

	This report contains confidential business information.

x	This report does not contain confidential business information.

KEYWORDS/DESCRIPTORS - Air Dispersion Modeling, Mercury, Hoboken, Grand Street, INPUFF, SCREEN, ALOHA

REPORT ABSTRACT - The United States Environmental Protection Agency/ Environmental Response Team (U.S EPA/ERT) requested the Response Engineering and Analytical Contract (REAC) Air Modeling Team to model the dispersion of mercury vapors due to a fire at the Grand Street site in Hoboken, NJ.

The report discusses the modeling techniques which were used to obtain ambient air concentrations of mercury due to volatilization of 1000 pounds of mercury.

The report demonstrates that the ambient concentrations of mercury in air may exceed the Immediately Dangerous to Life and Health (IDLH) [10 milligrams per cubic meter (mg/m^3)] and will most assuredly exceed the PEL (0.10 mg/m^3) for areas surrounding the building in mention should 1,000 lbs of mercury be available for vaporization. The models indicate that ambient concentrations of mercury may exceed the IDLH level for regions immediately surrounding the site as well as some elevated receptors several hundred meters downwind.